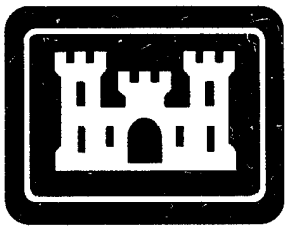


USATHAMA
TECH INFO CTR

3941

US Army Corps of Engineers

Toxic and Hazardous Materials Agency

DO NOT REMOVE
FROM FACILITY

FINAL REPORT

**EXPLOSIVES WASHOUT LAGOONS SOILS OPERABLE UNIT SUPPLEMENTAL INVESTIGATION
TECHNICAL AND ENVIRONMENTAL MANAGEMENT SUPPORT OF INSTALLATION RESTORATION TECHNOLOGY DEVELOPMENT PROGRAM
UMATILLA DEPOT ACTIVITY
HERMISTON, OREGON**

DTIC
ELECTE
SEP 2 8 1995
G

Prepared For:

U.S. Army Toxic and Hazardous Materials Agency
(USATHAMA)
Master Agreement No. 057970-A-D1
EMO Task Order No. 14213

Prepared By:

MORRISON KNUDSEN ENVIRONMENTAL SERVICES
and CH2M HILL

Distribution unlimited. Approved for public release.

Requests for this document must be referred to:
Commander
U.S. Army Toxic and Hazardous Materials Agency
Aberdeen Proving Ground, Maryland 21010-5401

19950926 120

April 1992

DTIC QUALITY INSPECTED 5

The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other documentation.

The use of trade names in this report does not constitute an official endorsement or approval of the use of such commercial products. This report may not be cited for purposes of advertisement.

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT Distribution unlimited; approved for public release.
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S) CETHA-BC-CR-92016
6a. NAME OF PERFORMING ORGANIZATION CH2M HILL/Morrison Knudsen Environmental Services 6b. OFFICE SYMBOL (*If applicable*) CETHA-BC-A	7a. NAME OF MONITORING ORGANIZATION U.S. Army Toxic and Hazardous Materials Agency (CETHA-BC-A)
6c. ADDRESS (*City, State, and ZIP Code*) 777 - 108th Avenue NE P.O. Box 91500 Bellevue, Washington 98009-2050	7b. ADDRESS (*City, State, and ZIP Code*) CETHA-BC-A Aberdeen Proving Ground, Maryland 21010-5401
8a. NAME OF FUNDING/SPONSORING ORGANIZATION U.S. Army Toxic and Hazardous Materials Agency 8b. OFFICE SYMBOL (*If applicable*) CETHA-BC-A	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER DOE Master Agreements DE-A606-76RLO 1830 057970-A-D1, Task 142134
8c. ADDRESS (*City, State, and ZIP Code*) CETHA-BC-A Aberdeen Proving Ground, Maryland 21010-5401	10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNIT ACCESSION NO.

11. TITLE (*Include Security Classification*) Washout Lagoons Soils Supplemental Investigation Technical and Environmental Management Support of Installation Restoration Technology Development Program, Umatilla Depot Activity, Hermiston, Oregon

12. PERSONAL AUTHOR(S) Raymondi, Richard

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (*Year, Month, Day*)	15. PAGE COUNT
Final	FROM May 1991 TO May 1992	1992, April, 15	274

16. SUPPLEMENTARY NOTATION
Contract Project Officer, Dr. Charles Lechner (CETHA-BC-A)

17. COSATI CODES			18. SUBJECT TERMS (*Continue on reverse if necessary and identify by block number*)
FIELD	GROUP	SUB-GROUP	Installation Restoration Technology Development Program, Soil Supplemental Investigation, Explosives Washout Lagoons

19. ABSTRACT (*Continue on reverse if necessary and identify by block number*)

As part of an ongoing Remedial Investigation/Feasibility Study at the Umatilla Army Depot, the soils of the Explosives Washout Lagoons at that installation were assigned as an operable unit for a possible expedited remedial action. Additional sampling was conducted to determine the explosives concentrations at depth beneath the lagoons, and to verify the absence of other contaminants. Explosives contamination was found from the ground surface to the groundwater at 47 feet. Concentrations were much higher in the top 3 feet than in the soil beneath that. Other organic contamination was not present; some metals were elevated slightly above background. The results of the study are being used in a feasibility study of remedial action alternatives.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT ☐ UNCLASSIFIED/UNLIMITED ☒ SAME AS RPT. ☐ DTIC USERS	21. ABSTRACT SECURITY CLASSIFICATION Unclassified
22a. NAME OF RESPONSIBLE INDIVIDUAL Dr. Charles Lechner	22b. TELEPHONE (*Include Area Code*) 301/671-1605 22c. OFFICE SYMBOL CETHA-BC-A

Engineers
Planners
Economists
Scientists

March 30, 1992

RLO32126

Accesion For
NTIS CRA&I [X]
DTIC TAB [ ]
Unannounced [ ]
Justification .....
By .....
Distribution /
Availability Codes
Dist | Avail and / or Special
A-1

Dr. Mark Montgomery
Battelle Sacramento EMO
2701 Prospect Park Drive
Suite 110
Rancho Cordova, CA 95670

Attention: Dr. Montgomery

Subject: Master Agreement 057970-A-D1; Task Order 142134 Explosive Washout Lagoons Site Support Services for Umatilla Depot Activity, Phase II, Draft Final Supplemental Investigation Report.

Submitted herewith are copies of the Draft Final Explosive Washout Lagoons Supplemental Investigation Report for the subject project. Copies have also been submitted to Dr. Charles Lechner of USATHAMA.

At Dr. Lechner's request, we have concurrently sent copies to the following:

- Christine Engler
  Seattle District Army Corps of Engineers
- Harry Craig, USEPA
  Oregon Operations Office
- Bill Dana,
  Oregon Department of Environmental Quality
- Mr. Mark Daugherty
  Umatilla Depot Activity

In order to minimize printing, we have assumed that only a limited number of minor changes will be needed to upgrade the Draft Final to a Final report ready for public review. We will issue final report covers, DD Form 1473, and any other necessary inserts to the recipients of the Draft Final reports when the report is upgraded to final. We will then print and submit to UMDA any additional copies needed for public review.

Please contact Bill Heartz or Linda Mihalik at (206) 453-5000 if there are any questions or we can be of further service.

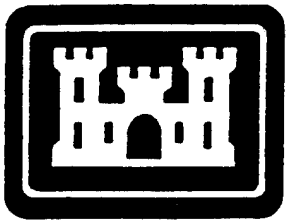
Sincerely,

CH2M HILL

William T. Heartz
Task Order Manager

cc: Linda Mihalik/CH2M HILL
Dr. Charles Lechner/USATHAMA
Harry Craig/USEPA
Bill Dana/DEQ
Mark Daugherty/UMDA
Christine Engler/COE
Dan Glenn/CH2M HILL/RLO

Report No. CETHA-BC-CR-92016



US Army Corps of Engineers

Toxic and Hazardous Materials Agency

FINAL REPORT

EXPLOSIVES WASHOUT LAGOONS SOILS OPERABLE UNIT SUPPLEMENTAL INVESTIGATION TECHNICAL AND ENVIRONMENTAL MANAGEMENT SUPPORT OF INSTALLATION RESTORATION TECHNOLOGY DEVELOPMENT PROGRAM UMATILLA DEPOT ACTIVITY HERMISTON, OREGON

Prepared For:

U.S. Army Toxic and Hazardous Materials Agency
(USATHAMA)
Master Agreement No. 057970-A-D1
EMO Task Order No. 14213

Prepared By:

MORRISON KNUDSEN ENVIRONMENTAL SERVICES
and CH2M HILL

Distribution unlimited. Approved for public release.

Requests for this document must be referred to:
Commander
U.S. Army Toxic and Hazardous Materials Agency
Aberdeen Proving Ground, Maryland 21010-5401

April 1992

CONTENTS

TABLES

FIGURES

Acronyms and Abbreviations

AA	Atomic absorption
ASTM	American Society for Testing and Materials
cfm	cubic feet per minute
CLASS	Contract Laboratory Analytical Support Services
cm	Centimeter
CRZ	Contamination Reduction Zone
1,3-DNB	1,3-Dinitrobenzene
2,4-DNT	2,4-Dinitrotoluene
2,6-DNT	2,6-Dinitrotoluene
EPA	Environmental Protection Agency
EPIC	Environmental Photographic Interpretation Center
ESE	Environmental Science and Engineering, Inc.
°F	degrees Fahrenheit
FS	Feasibility Study
FSP	Field Sampling Plan
g	grams
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GCEC	Gas chromatography with electron capture
GFAA	Graphite furnace atomic absorption spectroscopy
HMX	High Melting Explosive (cyclotetramethyl-enetetranitramine)
HPLC	High pressure liquid chromatography
ICP	Inductively coupled plasma atomic emission spectroscopy
ID	Inside diameter
kg	kilogram
km	kilometer
LHA	Lifetime Health Advisory

Layne	Layne Environmental Services, Inc.
MCL	Maximum contaminant level
µg/g	Micrograms per gram
µg/l	Micrograms per liter
MKES	Morrison Knudsen Environmental Services
ml	milliliter
msl	mean sea level
NB	Nitrobenzene
NPL	National Priorities List
PCBs	Polychlorinated biphenyls
ppb	parts per billion
ppm	parts per million
psi	pounds per square inch
QC	Quality control
RDX	Royal Demolition Explosive (cyclotrimethylenetrinitramine)
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RPD	Relative percent difference
TCL	Target Compound List
tetryl	N-methyl-N,2,4,6-tetranitroaniline
TIC	Tentatively identified compound
1,3,5-TNB	1,3,5-Trinitrobenzene
2,4,6-TNT	2,4,6-Trinitrotoluene
TOC	Total Organic Carbon
UMDA	Umatilla Depot Activity
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USGS	U.S. Geological Survey
WLSSI	Washout Lagoon Soils Supplemental Investigation

10020AF1.SEA

Executive Summary

Executive Summary

The Washout Lagoons Soils Supplemental Investigation was performed November 1 through 4, 1991, by Morrison Knudsen Environmental Services (MKES) and CH2M HILL to determine the distribution and concentration of contaminants in soils directly beneath the lagoons. Four boreholes were drilled, and soils were sampled at predetermined depths in accordance with the Field Sampling Work Plan, Explosive Washout Lagoons, Site 4, August 1991. Samples were analyzed by Environmental Science and Engineering, Inc. (ESE), a U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) Contract Laboratory Analytical Support Services (CLASS) laboratory.

Laboratory results from soil samples taken beneath the lagoons indicated contamination was essentially limited to explosives and nitrate, although the concentration of the trace element beryllium (Be) was slightly elevated. At 1-2.5 μg/g, concentrations of Be were slightly above the background levels measured on Depot soils. However, they were well within the range of background concentrations (0.1-40 μg/g) reported in *Chemical Equilibria in Soils* (Lindsay, 1979). Concentrations of other organic and inorganic analytes were either below detection or in the range of background levels.

Concentrations of explosives in soils decreased rapidly from the bottom of the lagoons to a depth of about 10 feet and then remained in the range of 1-100 μg/g in the interval from about 10 feet down to the water table. The explosives detected most frequently and in the greatest concentration were 1,3,5-TNB, 2,4-DNT, 2,4,6-TNT, HMX, and RDX. Tetryl was not detected; and 1,3-DNB, 2,6-DNT, and NB were detected in only a few samples and at relatively low concentrations. These findings are similar to the results of previous investigations conducted outside the lagoons.

Concentrations of explosives did not appear to correlate strongly with lithology on a large (macro) scale. An increase in silt or sand content in boreholes did not consistently result in an increase or decrease in the concentration of explosives. These results suggest that the distribution of explosives appears to be more strongly affected by borehole-specific conditions (micro-scale lithology, permeability, distance from the movable flume, and location relative to the lagoon) than by macro-scale lithology.

Groundwater is the suspected source of soil contamination observed near the water table in boreholes adjacent to the lagoons. Explosives-contaminated seepage has been flushed from soils and has moved laterally away from the lagoons in the groundwater system. Contaminants in groundwater appear to have been adsorbed by soils during fluctuations in the water table. The flushing also accounts for a relative decrease in concentrations of some contaminants in soil samples taken immediately above the water table and directly beneath the lagoons.

Profiles of borings show a dramatic difference in concentrations of explosives in areas outside the lagoons vs. concentrations beneath the lagoons. The results confirm that

lateral migration of contaminants above the water table is not significant. Migration appears to be primarily vertical as a result the relatively high permeability of soils beneath the lagoons.

10020AF5.SEA/2

Chapter 1
Introduction

Chapter 1
Introduction

The U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) at Aberdeen Proving Ground, Maryland, has requested technical and environmental management assistance for the Installation Restoration Technology Development Program at the Umatilla Depot Activity (UMDA) in Hermiston, Oregon (Figure 1-1). Past operations at UMDA included the demilitarization of conventional munitions using a pressurized hot water procedure. The washwater was transferred to two lagoons west of the wash-out facility. Discharge into the lagoons resulted in contamination of underlying soils and groundwater.

The UMDA Explosive Washout Lagoons were placed on the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL) in late 1987 because explosive compounds were detected in the underlying unconfined aquifer. Prior investigations also showed shallow soils in the bottom of the lagoons and soils collected from boreholes adjacent to the lagoons to be contaminated with explosives and nitrate.

An additional field investigation, the Washout Lagoons Soils Supplemental Investigation (WLSSI), was performed November 1 through 4, 1991, by Morrison Knudsen Environmental Services (MKES) and CH2M HILL to determine the distribution and concentration of contaminants in soils in the area directly beneath the lagoons. The WLSSI supplements the comprehensive site Remedial Investigation/Feasibility Study (RI/FS), which is presently being completed by Dames & Moore. Four boreholes were drilled, and soils were sampled at depth during the WLSSI. All samples were analyzed for a selected suite of explosives and nitrate/nitrite. Near-surface samples were also analyzed for target compound list (TCL) volatiles and semivolatiles, trace and major elements, pesticides, polychlorinated biphenyls (PCBs), total organic carbon (TOC), pH, and percent moisture.

This document, the WLSSI Draft Report, has been prepared as a deliverable under Subtask 3.4 of Project Implementation, Phase II for UMDA Explosive Washout Lagoons Site Support Services. The report includes a description of the two lagoons and a statement of work identifying sampling activities. Sample locations and depths, handling, documentation, custody procedures, and analytical parameters are identified. Discussions and interpretations of laboratory results and field data are presented. The results of the investigation are summarized, and conclusions are drawn from the findings.

1.1 Purpose and Scope

In the Risk Assessment for the Explosive Washout Lagoons, Dames & Moore (1991) concluded that remediation of contaminated soils is necessary to protect human health and the environment. Field testing at UMDA has shown that composting is a viable

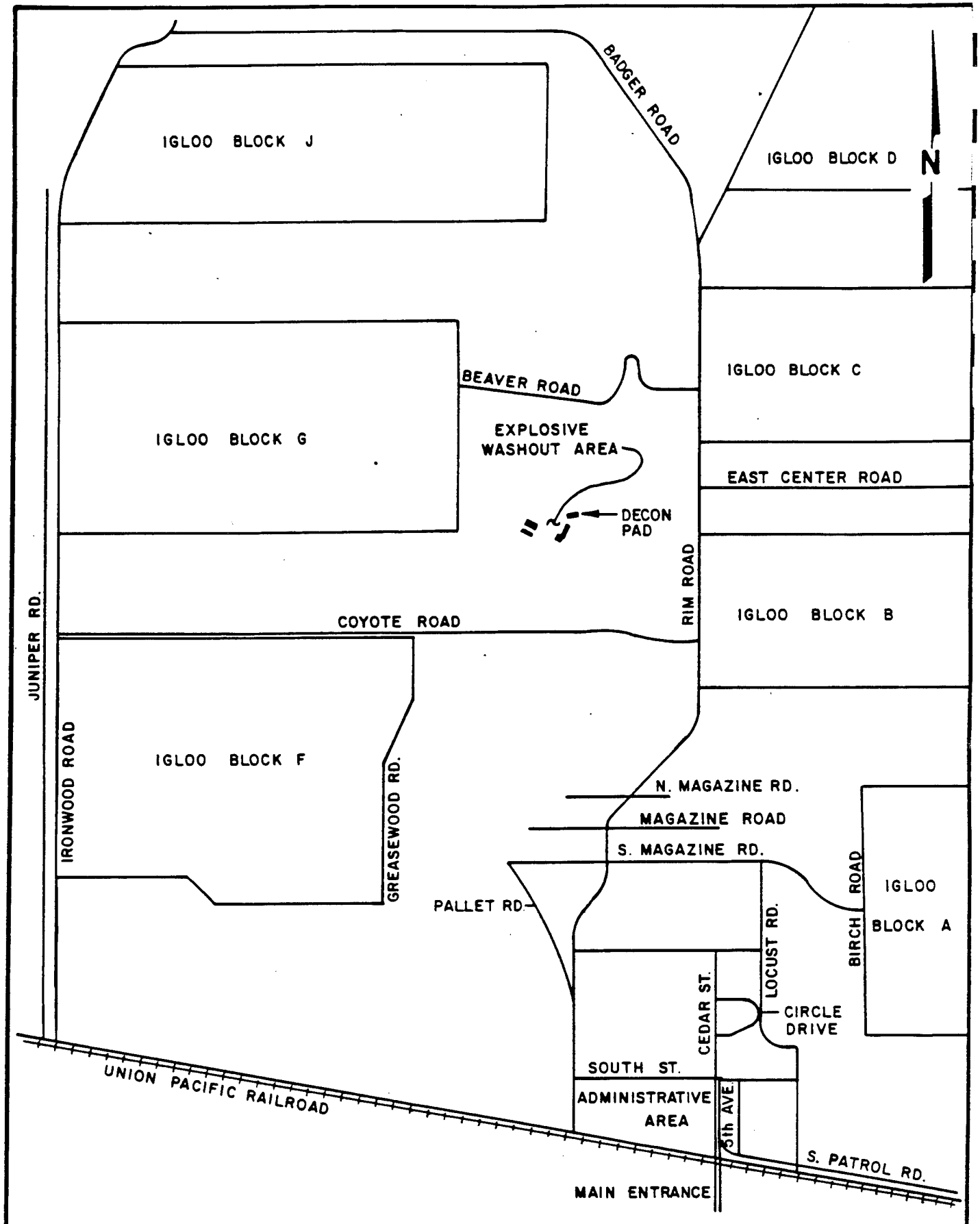


Figure No. 1-1

SITE LOCATION MAP

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

remedial alternative for decontaminating soils (Roy F. Weston, Inc., 1991). Composting and other remedial alternatives, such as incineration, are being evaluated and screened by CH2M HILL and MKES during the feasibility study (FS), now underway.

Surface sampling within the lagoons has shown that contaminant concentrations are highly variable. Subsurface investigations adjacent to the lagoons suggest that most of the contamination is generally restricted to soils near the surface and immediately above the water table.

The WLSSI was performed to determine the distribution and concentration of explosives, their breakdown products, and contaminants in soils directly beneath the lagoons. Prior to the WLSSI, the data were unavailable. The results have been correlated with data from previous investigations to develop a more complete profile of subsurface contamination. The findings documented in this report will be used to determine the quantity of soil requiring remediation and to provide a data base for the evaluation of remedial alternatives.

1.2 Field Sampling Program

The dual-wall reverse air circulation method was used to drill four boreholes through the Explosive Washout Lagoons. This method had been used during previous investigations at UMDA. Boreholes were advanced to the intersection of the underlying water table, which occurred at approximately 48 feet below the bottom of the lagoons.

During sampling, a split-barrel sampler was inserted through the hollow drill bit and driven 18 inches into undisturbed soil. Approximately 14 soil samples were collected from each borehole at predetermined depths and analyzed for a suite of selected chemical constituents. The sample analysis program is discussed in Chapter 4.

Drilling operations, soil sampling, and disposal of waste materials and cuttings were performed in accordance with UMDA and USATHAMA procedures and recommendations, the approved field sampling plan (FSP) (CH2M HILL and MKES, 1991), and the approved overall site remedial investigation/feasibility study (RI/FS) Work Plan and Field Sampling Plan (FSP) (Dames & Moore, 1990 and 1990b). Exceptions to these procedures are noted herein.

10020AF6.SEA

Chapter 2
Background and Physical Setting

Chapter 2
Background and Physical Setting

2.1 Operational History

Explosive washout operations were conducted in Building 489 (washout plant) at UMDA between the early 1950s and 1965. During these operations, explosives were washed from munitions, bombs, and projectiles using pressurized hot water and steam cleaning. The washout system was normally drained and flushed each week, which produced approximately 150,000 gallons of wash water. The discharge was transferred to two lagoons through a metal trough equipped with a movable flume. It is estimated that a total of 85,000,000 gallons of wash water may have been discharged to the lagoons during the operational period. The lagoons were constructed upon relatively permeable glacial flood gravels and were reportedly rebuilt during the operation (Dames & Moore, 1990a and 1990b).

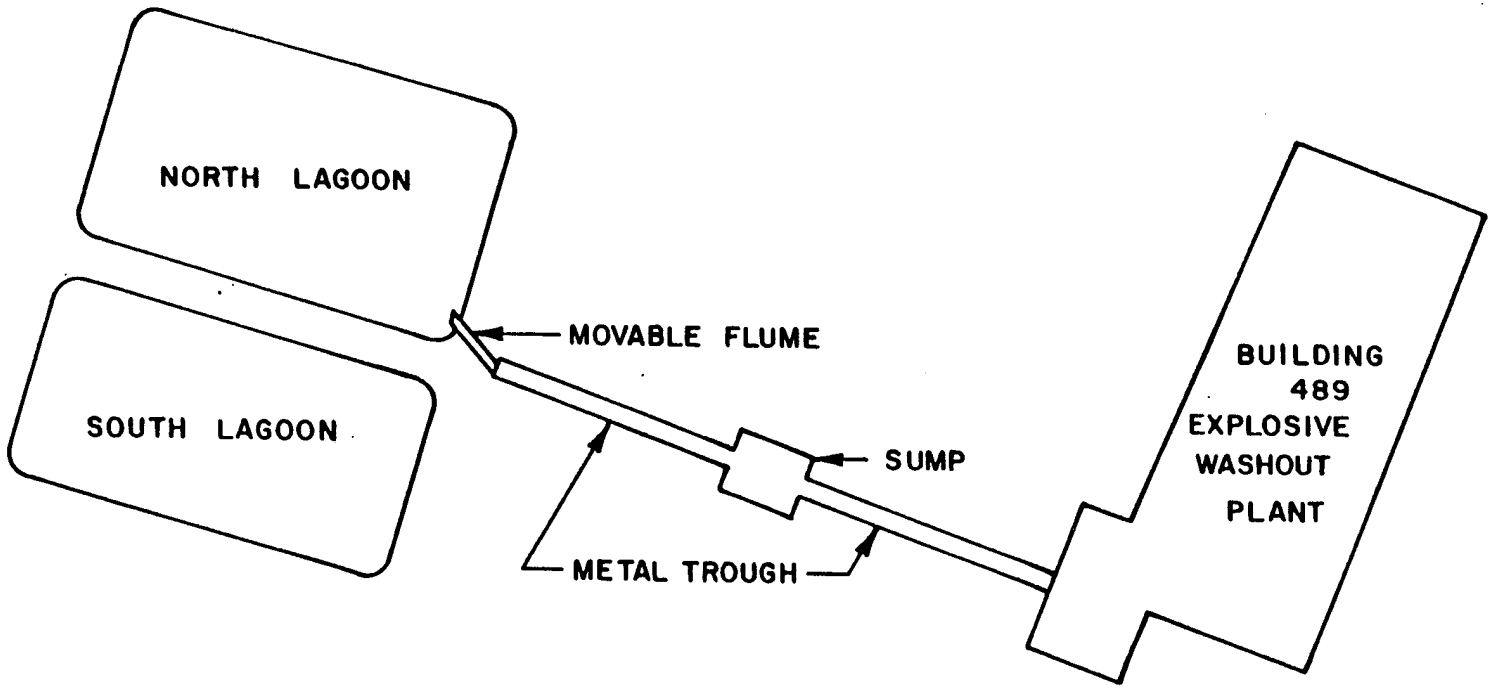
Wash water was discharged to the north or south lagoons on an alternating basis depending on the setting of the movable flume (Figure 2-1). One lagoon was used while the other was allowed to dry. Wash water was discharged into the active lagoon until approximately 3.5 feet of liquid had accumulated or until the rate of infiltration was substantially reduced by sludges. Sludges were periodically removed and transported to the ammunition demolition area for burning. Discharge to the lagoons from washout operations ceased in 1965.

2.2 Location and Site Description

The Explosive Washout Lagoons are located in the central part of the UMDA, approximately 3 miles south of the Columbia River. Most of the area near the Columbia River has poorly developed surface drainage patterns resulting from the high permeability of the glaciofluvial flood sediments that occur at ground surface. No perennial streams are present within the UMDA.

The UMDA is in a region with a semi-arid, cold desert climate. The surrounding vegetation consists of arid grasses and shrubs. Precipitation averages 8 to 9 inches per year, and evaporation is high, averaging 32 inches per year.

The average temperature at the UMDA is 75°F during the summer and 35°F during the winter. A maximum temperature of 113°F and a minimum temperature of -31°F have been recorded.



NOT TO SCALE

Figure No. 2-1
EXPLOSIVE WASHOUT LAGOONS
and WASHOUT PLANT AREA

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK FERGUSON

The lagoons were constructed in Coyote Coulee, a linear depression that is the major surface drainage feature within the UMDA (Figure 2-2). The escarpment above Coyote Coulee apparently is a large sand wave formed during the Pleistocene glacial floods of the Columbia River. The ground surface slopes southeastward away from the escarpment toward the Umatilla River at a gradient of approximately 50 feet per mile (Dames & Moore, 1990a and 1990b). Rolling hills and small areas of closed drainage are present west of Coyote Coulee.

The lagoons are west of Rim Road and north of Coyote Road (Figure 1-1) in the central portion of UMDA. The dimensions of the north and south lagoons are approximately 39 feet by 80 feet and 27 feet by 80 feet, respectively. Both lagoons are approximately 6 feet deep and have sandy bottoms and gravelly sides. The north and south lagoons are separated by a gravel berm that is approximately 15 feet wide. Lagoon sides are sloped at approximately 35 degrees. Soils contaminated with explosives are composted at a pilot plant adjacent to the lagoons.

2.3 Geology

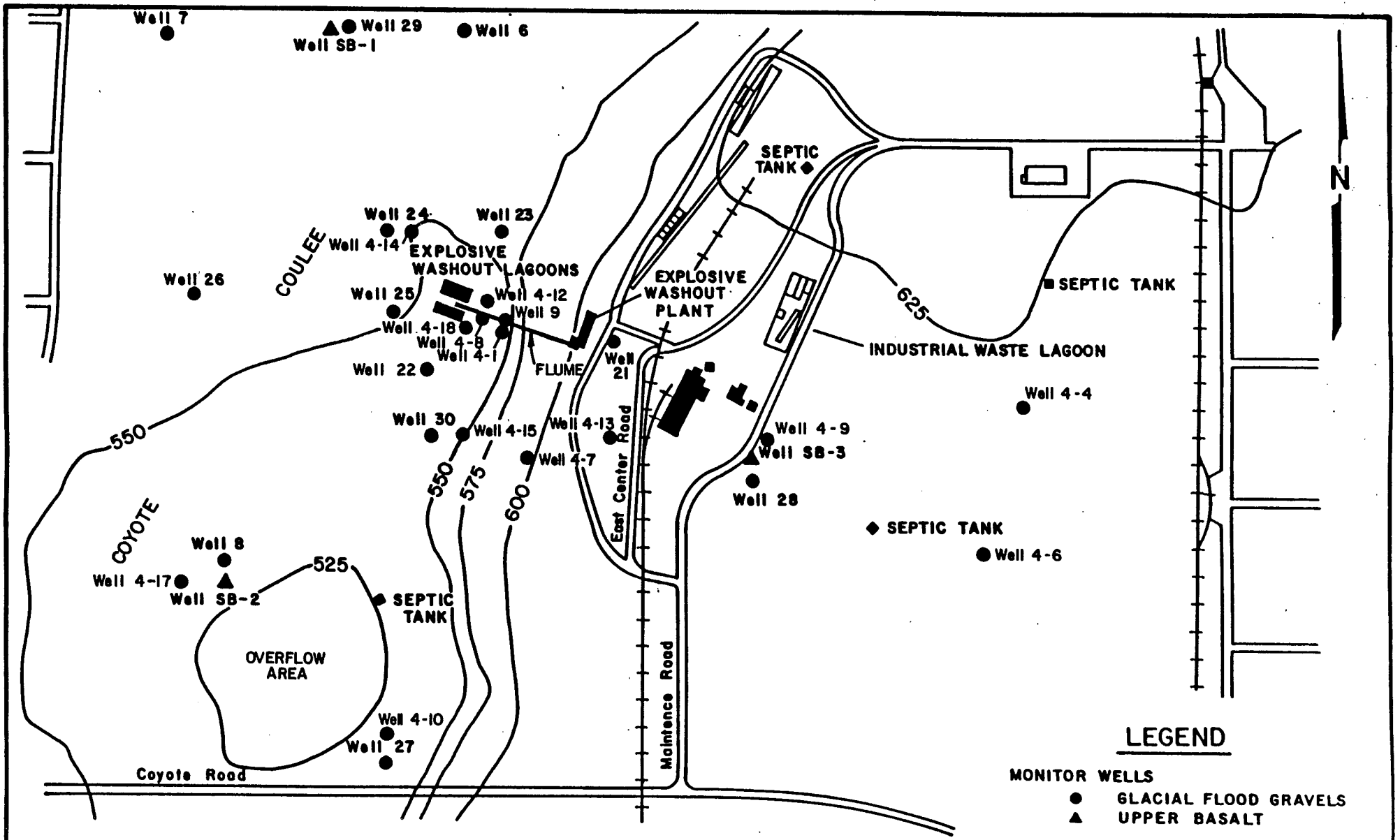
The geology of UMDA was established during earlier investigations (Table 2-1, Figures 2-3 and 2-4). Two geologic units—glacial flood gravels and the Columbia River Basalt—have been identified beneath the lagoons. The WLSSI was conducted within the glacial flood gravels.

2.3.1 Flood Gravels

Glacial flood sediments, primarily gravels, are exposed at ground surface in the vicinity of the Explosive Washout Lagoons. The flood gravels consist of rounded lag cobbles at the surface with coarse to fine sand between the clasts (Farooqui et al., 1981; Dames & Moore, 1990a and 1990b). The gravels were deposited by floods resulting from the sudden release of water impounded by glacial ice in western Montana.

The flood gravels are as much as 200 feet thick and reach their greatest thickness near UMDA. The gravels thin northward from UMDA and are only a few tens of feet thick near the Columbia River. The flood gravels pinch out southward near an elevation of 750 feet (Norton and Bartholomew, 1984; Dames & Moore, 1990a and 1990b).

The flood gravels form an important aquifer when saturated, and groundwater usually occurs under unconfined conditions. Groundwater within the gravels may be confined by locally occurring clay beds. The saturated thickness of the unconfined aquifer varies according to the elevation of the underlying basalt and the availability of recharge. Typically, 40 feet of flood gravels are saturated in the vicinity of the lagoons.



EXPLOSIVE WASHOUT LAGOONS AREA

SURFACE TOPOGRAPHY and MONITOR WELL LOCATIONS

Figure No. 2-2

MK-ENVIRONMENTAL SERVICES

Table 2-1
Stratigraphic Column: Morrow County, Oregon

Unit	Age	Thickness (ft)	Description
Eolian deposits	Recent	0 to 10	Sand, dunes, and sheets
Alluvium	Recent	0 to 50	Silt, sand, and gravel along stream channels and flood plains
Silt and sand	Pleistocene	0 to 80	Glacial lake sediments
Flood gravels	Pleistocene	0 to 200	Basalt gravel with coarse sand, with occasional silt layers
Alkali Canyon formation	Miocene-Pliocene?	0 to 100	Consolidated basalt gravel and tufaceous silt and sand, alluvial fan and braided stream deposits
Columbia River Basalt			Flood basalts, with sedimentary interbeds (parenthesized)
Saddle Mountain Basalt			
Pomona Member		0 to 200	
(Selah Interbed)		0 to 50	
Umatilla Member		0 to 150	
(Mabton Interbed)		0 to 25	
Wanapum Basalt			
Frenchman Springs Member		0 to 700	
(Vantage Interbed)		0 to 35	
Grande Ronde Basalt		>2,000?	
Prebasalt Rocks	Various	Unknown	Older sedimentary, volcanic, intrusive, and metamorphic rocks

Source: Dames & Moore, 1990 and 1990b.

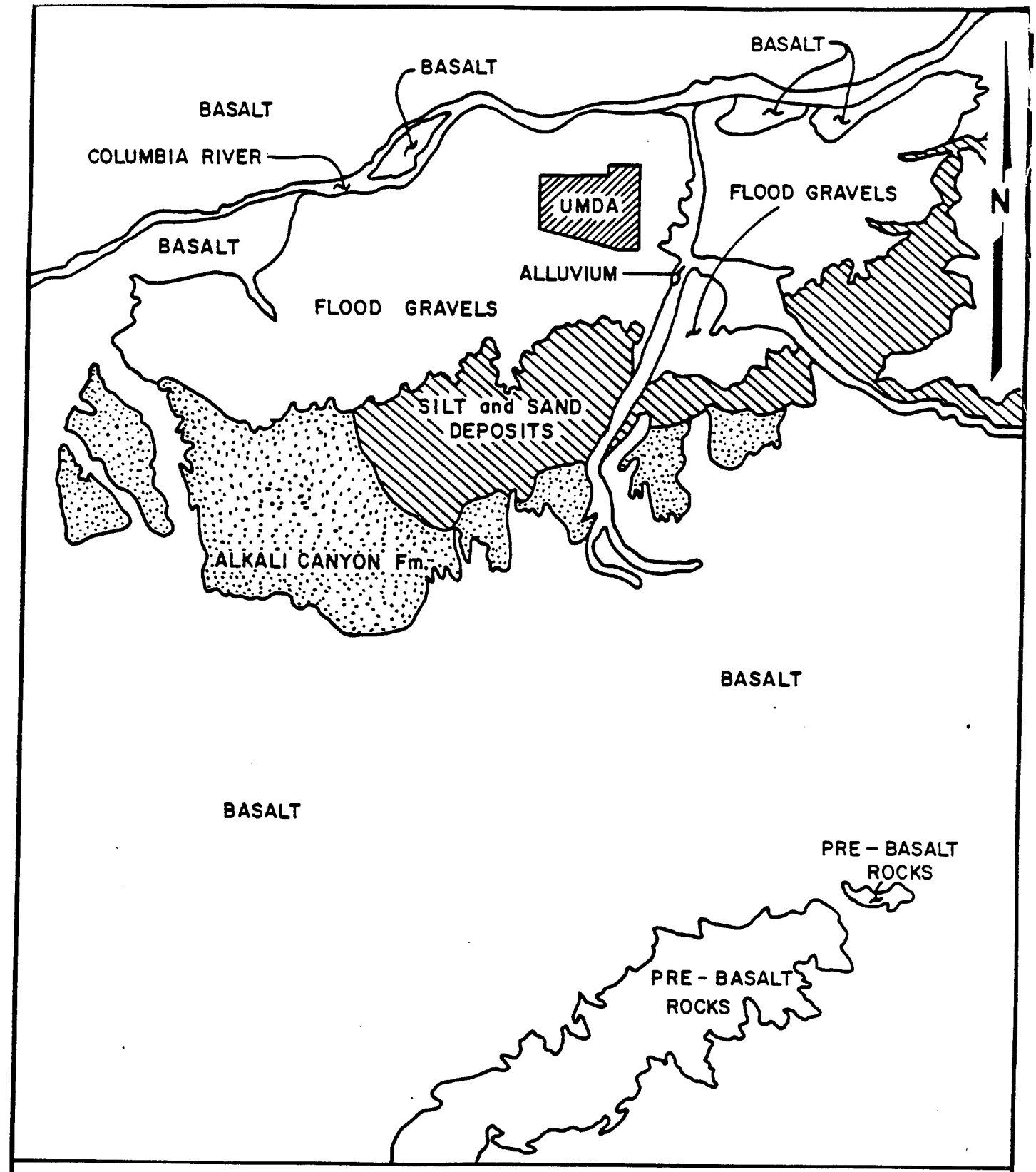


Figure No. 2-3
GEOLOGIC MAP (After Walker, 1977)
MORROW COUNTY, OREGON

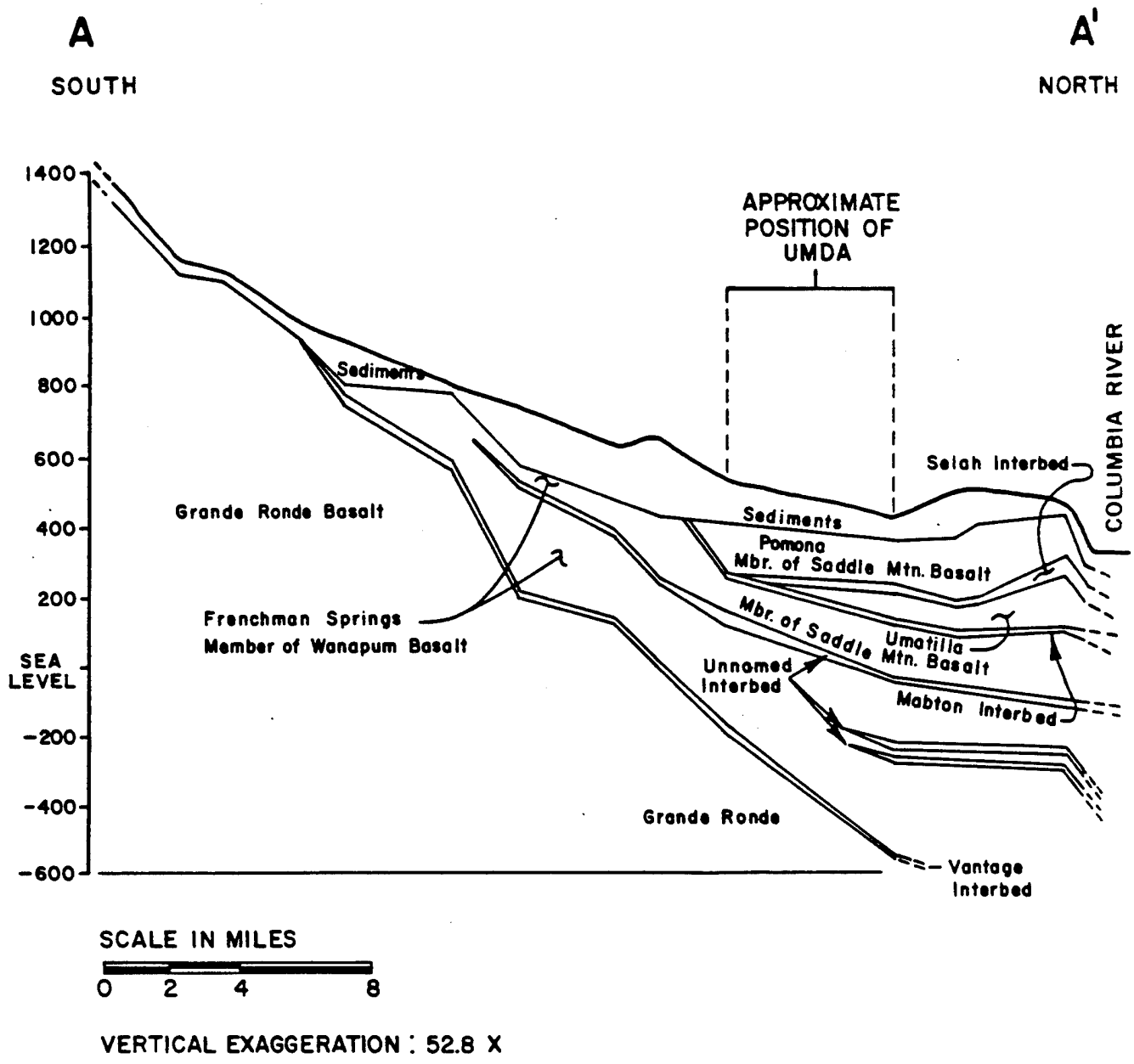


Figure No. 2-4
SUBSURFACE GEOLOGY
MORROW COUNTY, OREGON
(After Norton and Bartholomew, 1984)

The unconfined aquifer is influenced by irrigation, pumping, and leakage from irrigation canals. The direction of groundwater flow is uncertain, though springs along the lower reaches of the Umatilla River indicate the probable discharge area. Discharge to the Columbia River is also probable.

Groundwater within the unconfined aquifer has been contaminated by explosives (Figure 2-5) and nitrate/nitrite (Figure 2-6). The contaminants appear to be moving in both a southerly and southeasterly direction. The shape of the plumes suggests that groundwater pumpage may be controlling the direction of contaminant migration.

UMDA water supply wells No. 1 and No. 2 are located south of the lagoons. Well No. 1 apparently produces from the Umatilla Basalt, and well No. 2 from the Selah interbed and the Umatilla and Upper Frenchman Springs Basalts (Table 2-2). The results of sampling show groundwater contains nitrate at wells No. 1 and 2 (Dames & Moore, 1990).

Table 2-2
Well Completion Information: UMDA Water Supply Wells

Well	Production Zone	Stratigraphic Unit
1	280-327 feet	Umatilla Basalt
2	218-360 feet	Selah Interbed Umatilla Basalt Upper Frenchman Springs Basalt
3	256-453 feet	Umatilla Basalt Upper Frenchman Springs Basalt
4	430-600 feet	Frenchman Springs Basalt
5	460-618 feet	Frenchman Springs Basalt
6	179-710 feet	Pomona Basalt Umatilla Basalt Upper Frenchman Springs Basalt
7	?-682 feet	Frenchman Springs Basalt

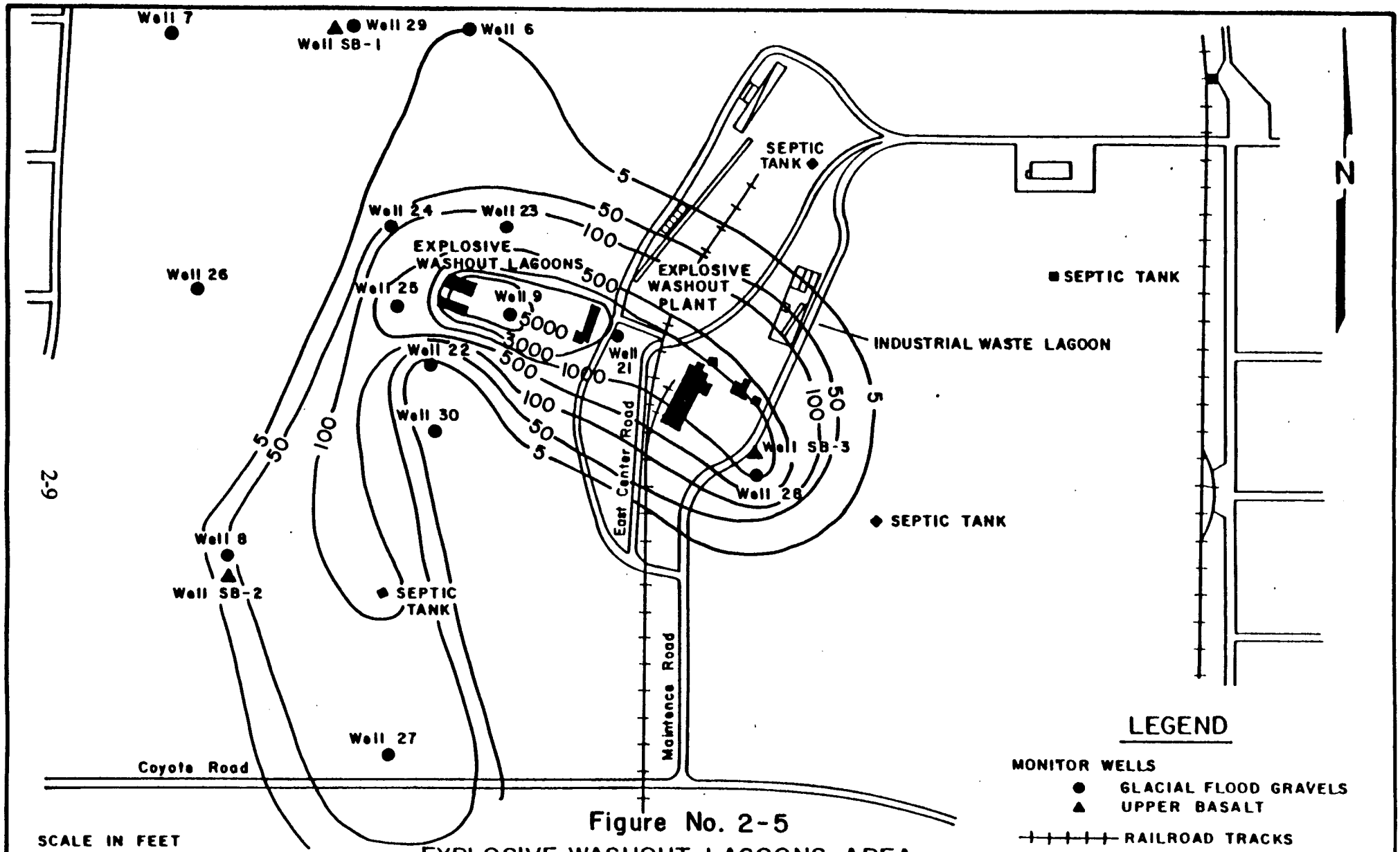


Figure No. 2-5

EXPLOSIVE WASHOUT LAGOONS AREA

RDX ISOCONCENTRATION CONTOURS (ug/L)

UNCONFINED AQUIFER

From : DAMES & MOORE , 1990a

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK FERGUSON

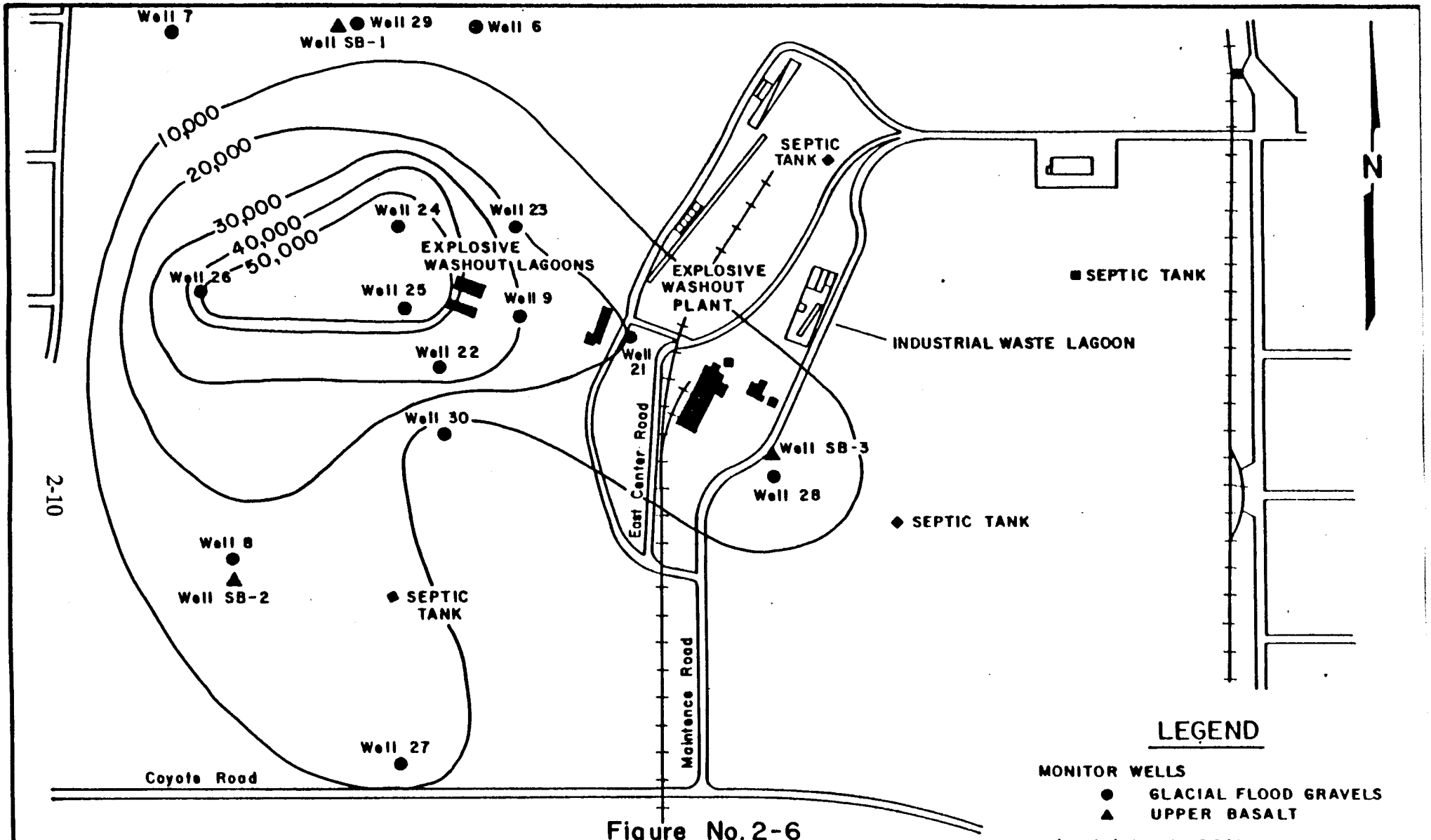


Figure No. 2-6

EXPLOSIVE WASHOUT LAGOONS AREA

N3/N2 ISOCONCENTRATION CONTOURS (ug/L)

UNCONFINED AQUIFER

From : DAMES & MOORE, 1990a

MK-ENVIRONMENTAL SERVICES

2.3.2 Columbia River Basalt

The Columbia River Basalt underlies the glacial flood gravels at the UMDA. The basalt erupted as a series of flood lava flows layered one on top of another. The source of the lava flows was primarily fracture systems in eastern Washington and northeastern Oregon.

Individual basalt flows were fluid and covered broad areas. The total maximum thickness of the Columbia River Basalt is unknown. The highest elevation of the top of the basalt is approximately 490 feet near the southeast corner of the UMDA. The top of basalt generally slopes northwestward.

Confined aquifers at UMDA consist primarily of interbeds between unweathered basalt flows. Geologically, the uppermost confined aquifer consists of strata interpreted to be the Selah Interbed (Table 2-1, Figure 2-4). The overlying confining unit is a moderately weathered to unweathered basalt flow, interpreted to be the Pomona Member of the Saddle Mountain Basalt (Dames & Moore, 1991).

2.4 Previous Investigations

A number of environmental investigations have been conducted at the site. The intent and results of these investigations are discussed in detail in the Enhanced Preliminary Assessment for the Umatilla Depot Activity and in the Field Sampling Plan of the RI/FS (Dames & Moore, 1990a and 1990b) and are only briefly summarized in this report. Tables 2-3 and 2-4 are summaries of soil analytical results from previous investigations in the vicinity of the Explosive Washout Lagoons.

As a result of a review of aerial photographs, the EPA determined in 1980 that changes to the environment had occurred at the site. The Environmental Photographic Interpretation Center (EPIC) compared aerial photographs taken between 1958 and 1970 and characterized the lagoons as a potentially hazardous site (EPA, 1981).

2.4.1 Battelle Environmental Contamination Survey and Assessment

Battelle performed an environmental survey at UMDA (Dawson et al., 1982). Monitor wells were constructed, and soil and groundwater samples were collected in the vicinity of the Explosive Washout Lagoons. Groundwater was sampled from monitor wells 6, 7, 8, 9, 21, 22, 23, 24, and 25 (Figure 2-2). Shallow soil samples were collected at undocumented locations within the lagoons.

Table 2-3
Summary of Soil Analytical Results (µg/g)—Previous Investigations

Site ID	Date	(Ref.)	Depth (a)	NIT (b)	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	Tetryl
S4-1	29-Jun-1990	(D&M)	0	16.10	32.00	<0.50	340.00	<0.42	<0.52	27.20	660.00	<2.41	<0.73
			2	12.00	25.00	<0.50	58.00	0.55	<0.52	13.10	120.00	27.10	<0.73
			4	8.38	1.09	<0.50	1.89	<0.42	<0.52	2.09	19.30	<2.41	<0.73
			6	12.00	18.00	0.85	1.78	<0.42	<0.52	15.60	30.00	3.90	<0.73
			8	12.00	45.00	0.84	1.04	<0.42	<0.52	10.90	7.87	<2.41	<0.73
S4-2	26-Jun-1990	(D&M)	0	0.61	2.19	<0.50	1.07	<0.42	<0.52	4.04	37.00	<2.41	<0.73
			2	3.24	<0.49	<0.50	<0.46	<0.42	<0.52	3.04	11.40	<2.41	<0.73
			4	2.43	<0.49	<0.50	<0.46	<0.42	<0.52	1.59	3.75	<2.41	<0.73
			6	1.59	<0.49	<0.50	<0.46	<0.42	<0.52	0.86	3.40	<2.41	<0.73
			8	1.19	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	3.10	<2.41	<0.73
S4-3	26-Jun-1990	(D&M)	0	1.98	<0.49	<0.50	<0.46	<0.42	<0.52	4.70	13.00	<2.41	<0.73
			2	2.19	<0.49	<0.50	<0.46	<0.42	<0.52	5.09	16.70	<2.41	<0.73
			4	<0.60	<0.49	<0.50	<0.46	<0.42	<0.52	1.85	5.51	<2.41	<0.73
			6	0.89	<0.49	<0.50	<0.46	<0.42	<0.52	2.25	6.80	<2.41	<0.73
			8	1.41	<0.49	<0.50	<0.46	<0.42	<0.52	1.55	5.22	<2.41	<0.73
S4-4	26-Jun-1990	(D&M)	0	5.58	1.06	<0.50	3.69	<0.42	<0.52	21.90	110.00	<2.41	<0.73
			2	2.68	<0.49	<0.50	2.65	<0.42	<0.52	7.95	31.00	<2.41	<0.73
			4	2.40	<0.49	<0.50	0.72	<0.42	<0.52	6.37	30.00	<2.41	<0.73
			6	0.97	<0.49	<0.50	<0.46	<0.42	<0.52	0.72	6.50	<2.41	<0.73
			8	0.59	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	2.60	<2.41	<0.73
S4-4 Dup.	26-Jun-1990	(D&M)	8	0.62	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	3.05	<2.41	<0.73
S4-5	28-Jun-1990	(D&M)	0	11.20	29.00	<0.50	3400.00	12.00	<5.20	68.00	450.00	<2.41	<0.73
			2	15.50	47.00	<0.50	5500.00	<21.00	<26.00	81.00	420.00	<2.41	<0.73
			4	8.54	31.00	0.55	3800.00	<21.00	<26.00	47.00	220.00	<2.41	<0.73
			6	9.73	16.90	<0.50	1100.00	<21.00	<26.00	15.00	66.00	<2.41	<0.73
			8	12.50	9.19	<0.50	1.83	0.51	<0.52	1.25	22.40	<2.41	<0.73

Table 2-3
Summary of Soil Analytical Results (µg/g)—Previous Investigations

Site ID	Date	(Ref.)	Depth (a)	NIT (b)	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	Tetryl
S4-6	28-Jun-1990	(D&M)	0	0.66	<0.49	<0.50	0.87	<0.42	<0.52	1.39	0.73	<2.41	<0.73
			2	<0.60	<0.49	<0.50	<0.46	<0.42	<0.52	0.69	<0.59	<2.41	<0.73
			4	<0.60	<0.49	<0.50	<0.46	<0.42	<0.52	0.72	<0.59	<2.41	<0.73
			6	<0.60	<0.49	<0.50	<0.46	<0.42	<0.52	0.72	<0.59	<2.41	<0.73
			8	<0.60	<0.49	<0.50	<0.46	<0.42	<0.52	1.33	0.91	<2.41	<0.73
			20	3.91	<0.49	<0.50	0.78	<0.42	<0.52	<0.67	8.63	<2.41	<0.73
			30	5.53	<0.49	<0.50	0.61	<0.42	<0.52	<0.67	22.30	<2.41	<0.73
			40	2.33	17.00	<0.50	8.59	1.05	<0.52	7.04	11.20	<2.41	<0.73
			50	2.34	22.50	<0.50	17.80	2.06	<0.52	13.40	3.61	<2.41	<0.73
S4-7	28-Jun-1990	(D&M)	0	2.14	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	<0.59	<2.41	<0.73
			2	1.09	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	<0.59	<2.41	<0.73
			4	0.66	<0.49	<0.50	<0.46	<0.42	<0.52	0.98	<0.59	<2.41	<0.73
			6	1.05	0.93	<0.50	<0.46	<0.42	<0.52	0.94	<0.59	<2.41	<0.73
			8	1.19	0.99	<0.50	<0.46	<0.42	<0.52	1.21	<0.59	<2.41	<0.73
S4-7 Dup.	28-Jun-1990	(D&M)	6	0.88	0.97	<0.50	<0.46	<0.42	<0.52	<0.67	0.70	<2.41	<0.73
S4-8	29-Jun-1990	(D&M)	0	4.20	3.99	<0.50	53.00	<0.42	<0.52	11.30	100.00	<2.41	<0.73
			2	1.87	<0.49	<0.50	0.82	<0.42	<0.52	1.27	4.55	<2.41	<0.73
			4	1.49	<0.49	<0.50	<0.46	<0.42	<0.52	0.81	3.02	<2.41	<0.73
			6	1.05	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	1.83	<2.41	<0.73
			8	1.06	<0.49	<0.50	<0.46	<0.42	<0.52	0.71	2.04	<2.41	<0.73
			20	2.47	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	9.12	<2.41	<0.73
			30	2.47	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	18.70	<2.41	<0.73
			40	4.31	11.40	<0.50	8.38	1.10	<0.52	4.99	26.00	<2.41	<0.73
			50	4.88	11.40	<0.50	12.50	1.74	<0.52	5.97	2.23	<2.41	<0.73
A-1	05-Oct-1989	(WES)c	0-1"	-	-	-	45582	-	-	<127.0	<98	-	-
A-2	05-Oct-1989	(WES)c	0-6"	-	-	-	618	-	-	0.7	2.13	-	-
A-3	05-Oct-1989	(WES)c	0-1"	-	-	-	87623	-	-	485	731	-	-

Table 2-3
Summary of Soil Analytical Results (µg/g)—Previous Investigations

Site ID	Date	(Ref.)	Depth (a)	NIT (b)	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	Tetryl
A-4	05-Oct-1989	(WES)c	0"	-	-	-	318	-	-	0.56	<0.98	-	-
A-5	05-Oct-1989	(WES)c	0-6"	-	-	-	4.3	-	-	15.4	5.1	-	-
A-6	05-Oct-1989	(WES)c	9-10"	-	-	-	<1.92	-	-	2.26	204	-	-
A-7	05-Oct-1989	(WES)c	0-6"	-	-	-	1618	-	-	57.6	246	-	-
A-8	05-Oct-1989	(WES)c	0-1"	-	-	-	4.43	-	-	<1.27	0.82	-	
EWL-1	27-Apr-1988	(WES)	3.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	3.80	<0.42	<0.25
			5.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<2.10"	<0.42	<0.25
			7.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	2.30	<0.42	<0.25
			10.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			20.3	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	2.00	<0.42	<0.25
			30.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	1.60	<0.42	<0.25
			40.7	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			50.2	<500	<2.09	<0.59	0.54	0.52	<0.40	3.00	3.00	<0.42	<0.25
EWL-2	26-Apr-1988	(WES)	3.1	<500	3.20	<0.59	4.40	0.56	<0.40	1.30	3.20	<0.42	<0.25
			5.1	<500	2.10	<0.59	<1.92	<0.42	<0.40	<1.27	2.10	<0.42	<0.25
			7.1	<500	<0.98	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			10.1	<500	1.10	<0.59	<1.92	<0.42	<0.40	<1.27	1.10	<0.42	<0.25
			20.3	<500	7.90	<0.59	<1.92	0.57	<0.40	3.40	7.90	<0.42	<0.25
			30.1	<500	6.80	<0.59	13.00	0.89	<0.40	3.50	6.90	<0.42	<0.25
			40.7	<500	10.00	<0.59	11.00	0.73	<0.40	4.40	10.00	<0.42	<0.25
EWL-3	27-Apr-1988	(WES)	3.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			5.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			7.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			10.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			20.3	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			30.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			40.7	<500	12.00	<0.59	5.80	1.80	<0.40	19.00	5.30	<0.42	<0.25

Table 2-3
Summary of Soil Analytical Results (µg/g)—Previous Investigations

Site ID	Date	(Ref.)	Depth (a)	NIT (b)	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	Tetryl
EWL-4	27-Apr-1988	(WES)	3.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			5.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			7.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			10.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			20.3	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			30.1	<500	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
			40.7	<500	4.90	<0.59	4.40	0.99	<0.40	7.50	6.80	<0.42	<0.25
			50.2	<500	<2.09	<0.59	4.40	0.57	<0.40	<1.27	<0.98	<0.42	<0.25
S.Lag. S-54	09-Mar-1981	(BAT)	0"	100*	NA	NA	38	<0.41	<0.39	NA	350	NA	<0.75
S.Lag. S-51	09-Mar-1981	(BAT)	0"	NA	NA	NA	2800	4.3	5.4	NA	<8.9	NA	12
S-125	23-Mar-1981	(BAT)	2.5"	NA	NA	NA	180	<0.41	<0.39	NA	260	NA	<0.75
S-127	23-Mar-1981	(BAT)	7.5"	NA	NA	NA	38	<0.41	<0.39	NA	43	NA	<0.75
Samples from overflow area:													
EWLOVRFW-1	04-May-1988	(WES)	0-8"	NA	<2.09	<0.59	<1.92	<0.42	<0.40	<1.27	<0.98	<0.42	<0.25
S4-9	13-Jul-1990	(D&M)	0	3.20	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	<0.59	<2.41	<0.73

Table 2-3
Summary of Soil Analytical Results (µg/g)—Previous Investigations

Site ID	Date	(Ref.)	Depth (a)	NIT (b)	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	Tetryl
S4-10	13-Jul-1990	(D&M)	0	1.53	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	<0.59	<2.41	<0.73
S4-11	13-Jul-1990	(D&M)	0	3.85	<0.49	<0.50	<0.46	<0.42	<0.52	<0.67	<0.59	<2.41	<0.73

• = Only NO3 was analyzed.
(a) = When a single value is listed, the depth indicated represents the top of the sampling interval.
(b) = Nitrogen as nitrate + nitrite.
(c) = Data was collected by Roy F. Weston, Inc. but is not published. Sample locations are shown on Figure 2-7.
BAT = Battelle Final Report, 1982, Environmental Contamination Survey and Assessment of Umatilla Depot Activity.
D&M = Dames & Moore, currently unpublished data from the ongoing Remedial Investigation/Feasibility Study of the Umatilla Depot Activity.
WES = Roy F. Weston, Inc., March 1989, Draft Final Report, Task Order 7, Umatilla Depot Activity Remedial Investigation.
NA = Not analyzed.
Note: Additional data from the January 1990 investigation performed by Roy F.Weston, Inc., are presented in Table 2-4.

Table 2-4
Soil Analytical Results
January 1990
(µg/g)

Sample (Depth)	Field Analysis 2,4,6-TNT	HPLC 2,4,6-TNT
A1 (0 to 6 inches)	NA	15,500
A2 (18 inches)	990	2,250
B1 (0 to 4 inches)	3,377	7,430
B2 (4 to 8 inches)	NA	8,350
C1 (0 to 6 inches)	3,068	4,020
C2 (12 inches)	1,686	1,170
D (0 to 6 inches)	4,250	8,510
E (0 to 6 inches)	2,438	3,980
F (0 to 6 inches)	78	130
G (0 to 6 inches)	NA	1,150
H (0 to 6 inches)	96,078	38,600
I (0 to 6 inches)	6,362	7,680
J (0 to 6 inches)	664	1,290
K (0 to 6 inches)	NA	240
L (0 to 6 inches)	101	180

See Figure 2-7 for sample locations.
NA = Analysis results not available.
HPLC = High-pressure liquid chromatography.
Source: Dames & Moore, 1991a and 1991b; Roy F. Weston, Inc., 1991.

The Battelle study indicated that soil and groundwater in the vicinity of the washout lagoons were contaminated with explosives. Analysis of soil samples indicated the presence of 2,6-DNT, 2,4,6-TNT, RDX, 2,4-DNT, tetryl, and nitrate/nitrite (Table 2-3). Explosives, including 2,4,6-TNT, 2,4-DNT, 2,6-DNT, RDX, HMX, and nitrate were detected in groundwater samples. The highest concentrations were detected in wells 9, 21, 22, 23, 24, and 25. The data are reported by Dames & Moore (1990a and 1990b).

2.4.2 Century Environmental Services and Century West Engineering Groundwater Monitoring Reports

In March and August 1986, Century Environmental Services (1986a and 1986b) conducted groundwater sampling and analysis of the pre-existing Battelle wells. Samples were analyzed for the following parameters: pH, TNT, DNT, RDX, HMX, tetryl, and nitrate (Dames & Moore, 1991). In February and August 1987, Century West Engineering Corporation (1987a and 1987b) conducted additional groundwater sampling of the same wells. Samples were analyzed for the parameters mentioned above.

2.4.3 Ana-Lab Corporation Groundwater Monitoring Studies

In August and November 1988, Ana-Lab Corporation (1988) completed groundwater studies at UMDA. Groundwater samples were analyzed for nitrogen as nitrate + nitrite, TNT, DNT, tetryl, RDX, and specific conductivity (Dames & Moore, 1991).

2.4.4 Roy F. Weston, Inc., Investigations

Roy F. Weston, Inc. (Weston), conducted a field investigation in April and May of 1988 that included construction of additional monitor wells, collection of soil samples from an overflow area (Figure 2-2) and from four boreholes (EWL-1, EWL-2, EWL-3, and EWL-4) drilled to the water table, and collection of groundwater samples (Roy F. Weston, Inc., 1989). The borehole locations are shown in Figure 2-7.

Laboratory results of samples collected from boreholes EWL-1, EWL-2, EWL-3, and EWL-4 (Table 2-3) indicated elevated levels of contamination (1,3,5-TNB, 2,4,6-TNT, 2,4-DNT, HMX, and RDX) in soils adjacent to the lagoons. Contamination was also identified in sediments immediately above the water table in boreholes more distant from the lagoons. Explosives and nitrate/nitrite were detected in groundwater samples.

The data suggest that soil contamination outside and adjacent to the lagoons may have been caused by spillage and possibly by reconstruction of the lagoons. The groundwater system appears to be a source of contamination for soils immediately above the water table.

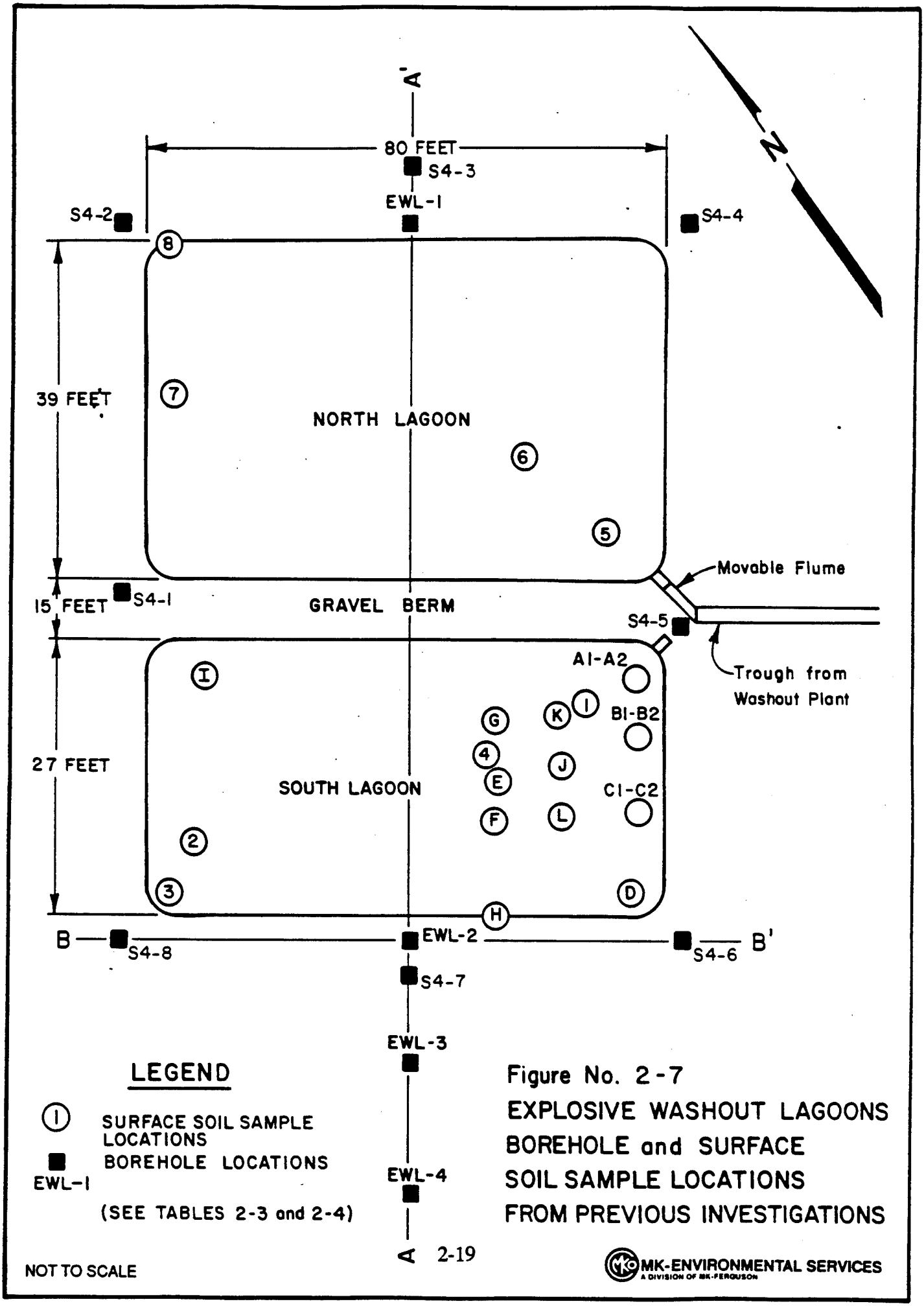


Figure No. 2-7
EXPLOSIVE WASHOUT LAGOONS
BOREHOLE and SURFACE
SOIL SAMPLE LOCATIONS
FROM PREVIOUS INVESTIGATIONS

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

Weston also sampled surface soils within the lagoons in October 1989. The samples were analyzed to provide data required for the design of a composting pilot test. Four soil samples were collected in each of the lagoons. The sample locations (Nos. 1 through 8) are shown on Figure 2-7. The explosives HMX, RDX and 2,4,6-TNT were detected in the samples (Table 2-3).

Additional soil samples were collected in January 1990 for final design of the pilot test composting system. These samples were analyzed both in the field and in the laboratory (Table 2-4). Analytical results showed variable concentrations of contaminants in surface soils. Sample locations (A through L) are shown in Figure 2-7.

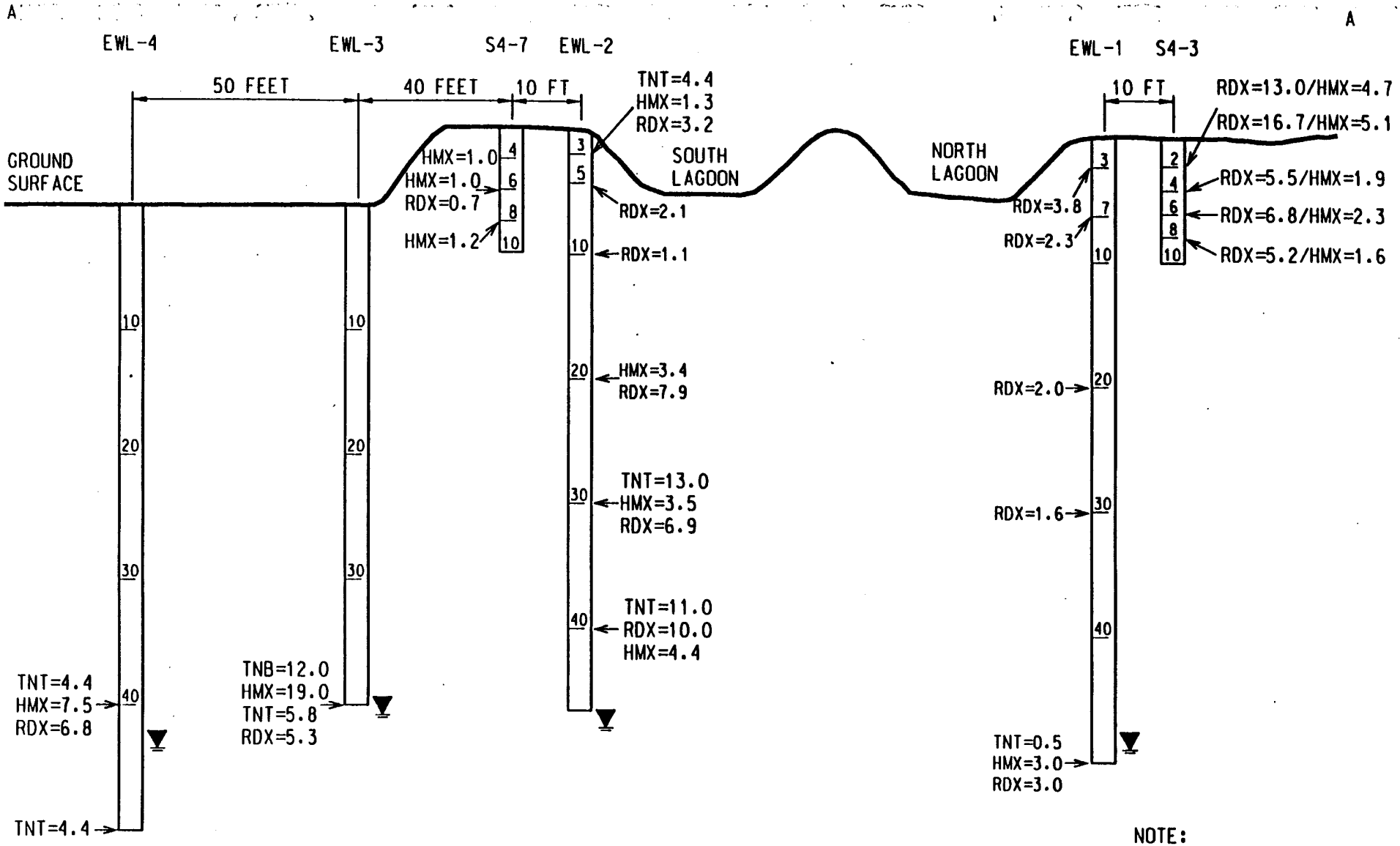
2.4.5 Dames & Moore Investigations

Dames & Moore evaluated hydrogeologic data and the evidence of contamination from the lagoons developed in previous investigations and proposed further studies. Based on their evaluation, nitrate and explosives were determined to be contaminants requiring remediation. Potential exposure pathways and receptors were evaluated, preliminary remedial action alternatives were identified, and data requirements were addressed in the report (Dames & Moore, 1990a). They concluded that the vertical and areal extent of soil contamination in the vicinity of the lagoons needed to be delineated, and recommended additional drilling.

During the subsequent program, eight boreholes, S4-1 through S4-8 (Figure 2-7), were drilled around the periphery of the lagoons in June 1990 (Dames & Moore, 1991). No boreholes were drilled within the lagoons. Boreholes S4-6 and S4-8 were drilled to a depth of 50 feet, and the remaining boreholes were 10 feet deep. Samples were collected at 2-foot intervals between 0 and 10 feet, and at 10-foot intervals below 10 feet.

The greatest concentrations of explosives were detected at and near the ground surface to the west (S4-1), east (S4-5), and southwest (S4-8) of the lagoons. The contaminants include 2,4,6-TNT, 1,3,5-TNB, and RDX (Table 2-3). Nitrate was also detected in near-surface soil samples. Highest contaminant levels were detected in borehole S4-5, which is near the movable flume at the end of the wash water discharge trough. In the surface sample, 2,4,6-TNT was detected at 3,400 µg/g, and RDX was detected at 450 µg/g (Table 2-3).

In general, concentrations of contaminants decreased with depth below ground surface but increased near the top of the underlying water table. This distribution of contaminants was similar to what was seen in the EWL boreholes drilled in 1988 (Roy F. Weston, Inc., 1989). In samples taken near the water table, 1,3,5-TNB, 2,4,6-TNT, HMX, and RDX were detected in concentrations exceeding 10 µg/g in boreholes EWL-2, EWL-3, S4-6, and S4-8 (Table 2-3, Figures 2-8 and 2-9).



NOTE:
CHEMICAL DATA (ug/g) FROM INVESTIGATIONS PERFORMED PRIOR TO WLSSI.

SOURCE:
DAMES & MOORE, 1991

CROSS SECTIONS
- LOCATED ON FIGURE 2-7

DEPTH IN FEET

▼ = WATER TABLE

FIGURE 2-8
CROSS SECTION (NORTH - SOUTH) SHOWING CONCENTRATIONS OF EXPLOSIVES IN SOILS

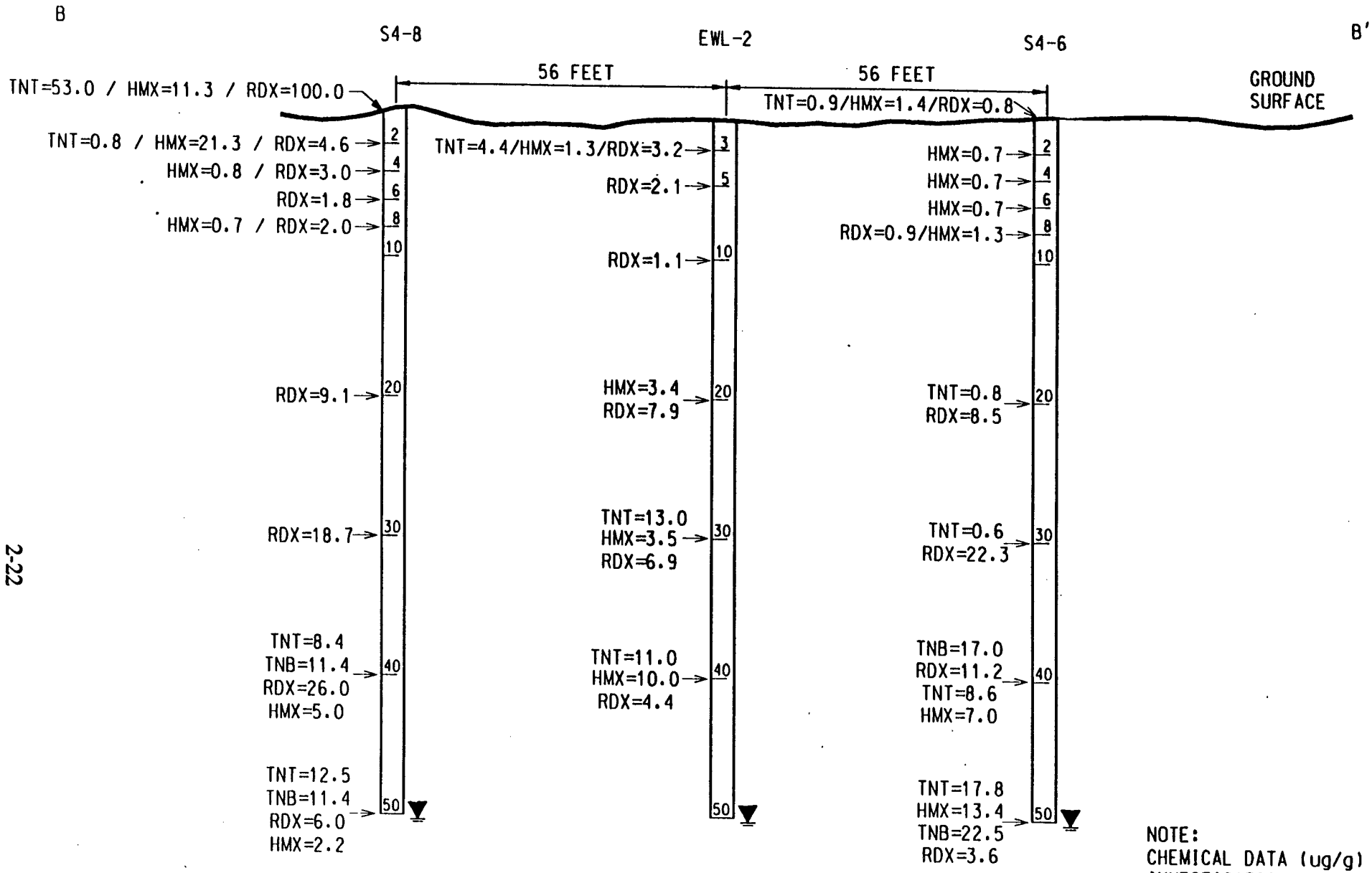


FIGURE 2-9
CROSS SECTION (EAST - WEST) SHOWING CONCENTRATIONS OF EXPLOSIVES IN SOILS

DEPTH IN FEET

▼ = WATER TABLE

NOTE:
CHEMICAL DATA (ug/g) FRO INVESTIGATIONS PERFORMED PRIOR TO WLSSI.

SOURCE:
DAMES & MOORE, 1991

CROSS SECTIONS
- LOCATED ON FIGURE 2-7

Chapter 3
Subsurface Investigation

Chapter 3
Subsurface Investigation

To further characterize soil contamination beneath the UMDA Explosive Washout Lagoons, the WLSSI was conducted in late 1991. This consisted of drilling, logging, and sampling of soils from four boreholes. Drilling was terminated at the intersection of the underlying water table, which was approximately 48 feet below the bottom of the lagoons. Previous drilling investigations encountered groundwater at depths between 40 and 50 feet.

3.1 Borehole Locations

Four boreholes (S4B-5, -6, -7 and -8) were drilled into the unsaturated zone beneath the lagoons during the WLSSI. The boreholes were located in the west and east sides of the lagoons (Figure 3-1) where subsurface data were lacking. Boreholes S4B-5 and S4B-6 were drilled into the north lagoon, and S4B-7 and S4B-8 were drilled into the south lagoon. Precise location data provided from a site survey performed on November 15, 1991, are presented in Table 3-1.

3.2 Mobilization

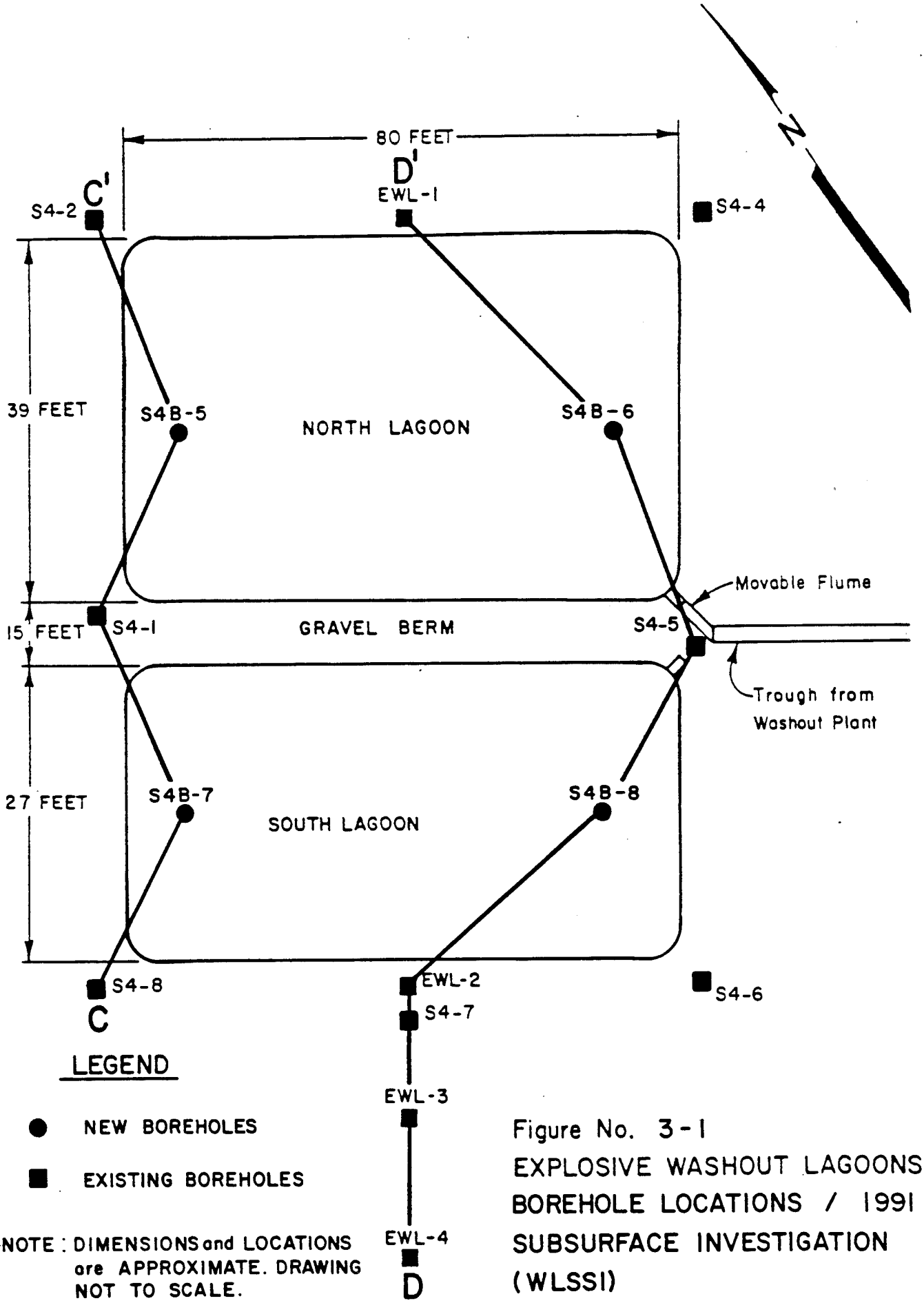
Layne Environmental Services, Inc. (Layne) of Tacoma, Washington, drilled the four boreholes. A truck was parked immediately adjacent to the rig to supply pipe during drilling activities. Maneuverability within the lagoons was limited, and UMDA provided a bulldozer to assist the drill rig with entering and exiting.

Arrangements for access to UMDA were made in advance. Clearance for base access was obtained at the facility front gate and in the administrative area. Vehicle, equipment, and camera passes were obtained from UMDA, and all vehicles traveling beyond the administrative area were equipped with fire extinguishers.

The UMDA Safety Officer conducted a health and safety orientation for all WLSSI personnel before drilling began. Hazards and operational constraints were identified during the orientation.

3.3 Drilling and Sampling Activities

Four boreholes were drilled beneath the lagoons to a depth corresponding to the top of the underlying water table. Soil samples were collected at depth-specific intervals.



NOTE : DIMENSIONS and LOCATIONS are APPROXIMATE. DRAWING NOT TO SCALE.

Figure No. 3-1
EXPLOSIVE WASHOUT LAGOONS
BOREHOLE LOCATIONS / 1991
SUBSURFACE INVESTIGATION
(WLSSI)

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK FERGUSON

Table 3-1
Boring Locations and Elevations[1]

	State Plane (ft)		UTM (m)			
	Northing	Easting	Northing	Easting	Elevation[2]	Comments
Boring No.						
S4B-5	790205.87	2273001.33	311443.39	5077087.97	543.65	Top of 2.5-ft diameter concrete plug, plug depressed 1.0 ft
S4B-6	790179.74	2273064.41	311480.03	5077145.58	545.02	Top of 2.5-ft diameter concrete plug, plug depressed .25 ft
S4B-7	790148.80	2272980.55	311393.60	5077122.77	543.96	Top of 3.0-ft diameter concrete plug, plug depressed .2 ft
S4B-8	790121.36	2273041.49	311427.76	5077180.22	545.05	Top of 3.0-ft diameter concrete plug, plug depressed .2 ft
Survey Benchmarks						
Survey Monument 20	790810	2273770	311573	5077891	598.2	
Survey Monument 21	789542	2272562	311188	5077521	537.3	
Survey Monument 22	789776	2273251	311701	5077583	605.4	
Survey Monument 23	790029	2274002	311633	5077650	620.8	

[1]Survey performed November 15, 1991, by CH2M HILL.
[2]Feet Msl.

3.3.1 Drilling Method

A Drill Systems AP-1000 rig and the dual-wall reverse-circulation air rotary method were used for drilling at the site. This method was successfully used for drilling boreholes and for constructing monitor wells during previous investigations at UMDA. Typically, 50 feet of soils were penetrated, and required samples were taken from each borehole over a period of approximately 4 hours.

The dual-wall reverse-circulation air rotary method uses a 6-inch-inside-diameter (ID), double-walled drill pipe that is advanced into the ground by the percussion action of an above-ground pile hammer. The borehole is simultaneously drilled and temporarily cased. During drilling, compressed air (750 cfm/350 psi) is forced down the annular space between the inner and outer pipe. The air emerges through openings in the bottom of the casing, and cuttings are lifted up the inner pipe in a reverse-circulation manner.

An air compressor capable of achieving high up-hole velocities was used to remove drill cuttings. Cuttings were discharged through a cyclone separator assembly mounted on the drill rig. Return air and downhole vapors were vented from the top of the cyclone separator. Cuttings fell by gravity from the bottom of the cyclone into 55-gallon steel drums. The filled drums were marked to identify borehole number and depth, and placed in the storage area adjacent to the open evaporation basins, near the decontamination pad.

Nonsparking beryllium shovels were used to remove surface soils in a 1.5-foot radius around boreholes to a depth of 1.5 feet prior to the commencement of drilling. The removed soil was placed in 55-gallon steel drums and grouped separately at the cuttings and waste storage area.

Measures were taken to prevent soils from being contaminated by drilling-related materials and to protect workers and the surrounding environment from exposure to potential contaminants. A filter was installed on the compressor to prevent oil and foreign debris from entering the cuttings recovery system. Nonhydrocarbon-based lubricants were used on the threads of downhole drilling equipment. A water mist was sprayed into the air system while penetrating soils to minimize fugitive dust. Plastic sheeting was placed beneath the rig before drilling began to minimize the amount of contact between the workers, rig, tools, and drill pipe and the underlying contaminated soils.

Water for drilling and decontamination of equipment was obtained from UMDA water supply well No. 3, located near the perimeter of the UMDA on North Patrol Road. This well is a source of nonchlorinated groundwater from the Columbia River Basalt aquifer. A tank truck was used to transport water from the well to the lagoons (for drilling) or to the decontamination area. Decontamination of drilling equipment is discussed in Section 3.6.1.

3.3.2 Sampling Method

A 2.5-inch by 18-inch split-barrel sampler was used to collect soil samples. The split-barrel sampler was inserted through the drill bit and driven 18 inches into undisturbed soil. Approximately 14 soil samples were collected at pre-determined depths from each borehole. Samples were taken at 2-foot intervals from ground surface to a depth of 10 feet, and at 5-foot intervals from a depth of 10 feet to the water table. Borehole data including total depth, number of samples taken, and depth to groundwater, are presented in Table 3-2.

Table 3-2
Borehole Data Obtained from Field Sampling

Borehole	Total Depth[1]	No. of Samples	Depth to Groundwater[1]
S4B-5	51.5 feet	14	47.1 feet
S4B-6	51.5 feet	14	48.0 feet
S4B-7	48.0 feet	13	47.0 feet
S4B-8	51.5 feet	14	48.0 feet

[1]From ground surface.

Split-barrel samplers were placed on clean aluminum foil after retrieval. Soil material was removed from the sampler using stainless steel trowels. The sample was split lengthwise and one half was placed into the appropriate container supplied by the analytical laboratory. The remaining half of the sample was placed into a container and archived in a storage warehouse at UMDA. Sample recovery using the split-barrel system was sufficient (67 percent or greater) to preclude the necessity for alternative collection methods.

3.3.3 Field Quality Control Samples

Soil samples were collected in accordance with the FSP and the amended Quality Assurance Project Plan (CH2M HILL and MKES, 1991). Quality control samples were collected so that the accuracy of reported analytical values could be reviewed, and the possibility of cross-contamination or contamination of soils by external factors could be evaluated.

3.3.3.1 Blanks

One laboratory-prepared trip blank was included in each shipment of samples designated for analysis of volatile organic compounds. A total of three trip blanks were delivered to the laboratory for analysis of TCL volatiles.

3.3.3.2 Duplicates

One duplicate sample was collected for each borehole drilled. Duplicates were taken at 30.0 feet in S4B-5, 2.0 feet in S4B-6, 45.0 feet in S4B-7, and 15.0 feet in SNB-8. The samples were identified according to the USATHAMA designation code.

Duplicate samples were taken by placing soils obtained from the split-barrel sampler into a pile of uniform thickness on clean aluminum sheeting. The pile was quartered using a stainless-steel trowel. Opposite quarters were sent to the laboratory as the sample and the duplicate sample. Duplicate samples were analyzed for the same set of parameters as the original sample. The analysis program is discussed further in Section 4.0.

3.3.3.3 Decontamination or Rinsate Blank

Decontamination water was sampled each day during the supplemental investigation. Also, a water sample was collected following the initial steam cleaning of the bit before drilling began. Decontamination blanks were taken by pouring organic-free deionized water over the drill bit or split-barrel sampler after decontamination by steam-cleaning. The blanks were analyzed for the total analyte list discussed in Section 4.0.

3.3.3.4 Water Blank

The drilling and decontamination water pumped from UMDA well No. 3 was sampled from the water truck. The blank was designated "well-3" and analyzed for the total analyte list (Section 4.0).

3.4 Sample Handling

Soil samples were placed into appropriate glass containers and packed in coolers supplied by the Environmental Science and Engineering, Inc. (ESE), Laboratory, a USATHAMA CLASS laboratory. The appropriate preservatives were added to the containers in the field immediately before the samples were taken. All containers were immediately placed in coolers and chilled with ice.

3.4.1 Sample Containers

Soil samples were placed in amber glass jars provided by ESE. Three 0.5-liter amber glass jars were used for each sample analyzed for explosives. Two jars were sent to ESE for analysis, and one jar was archived in a warehouse at UMDA for potential future analysis. In addition, two 60-ml amber glass vials were required for nonexplosive parameters from samples taken at 0, 4, and 10 feet from each boring.

Containers for rinsate blanks and the water sample from supply well No. 3 were also supplied by ESE. Seven 1-liter amber glass jars were required for each sample for the analysis of explosives, TCL semivolatiles, pesticides, PCBs, and alkalinity. No preservatives were added to the 1-liter jars. Additionally, two, 1-quart cubic containers were required for the analysis of major ions and trace elements. The sample for trace elements, Fe, and Mn was preserved with nitric acid; and the sample for major ions was preserved with sulfuric acid. Four 60-ml amber glass vials were used for the sample analyzed for TCL volatile organic compounds. The samples for volatiles were preserved with hydrochloric acid.

3.4.2 Sample Packing

Sample containers were completely filled with soil material. The container was sealed with an USATHAMA-approved lid. Each sample label was completed with the following information:

- Date and time of sample collection
- Field sample number
- Borehole site ID
- Sample depth or interval
- USATHAMA designation (combination of site ID and depth)
- Analyte(s)
- Preservatives (if any)
- Project and task number
- Sampler's initials

The above information was also recorded in the sample logbook.

3.4.3 Sample Shipment

ESE provided the coolers and packaging materials required for shipment of samples to the laboratory. Sample containers were carefully packed in the coolers to avoid breakage and chilled with ice. The coolers were closed and secured with tape. Signed and dated custody seals were attached in a manner requiring the seal to be broken in order to open the container.

Two sample shipments were sent to the laboratory. The first shipment was sent on Saturday, November 2, 1991, and delivery was made on November 4, 1991. The second

shipment was sent on Monday, November 5, 1991, and was received within 24 hours. ESE was informed of the shipping schedule so that specified laboratory holding times would not be exceeded.

3.4.4 Chain-of-Custody Forms

The original chain-of-custody forms were placed in the coolers shipped to the laboratory. Sample designation, date and time of collection, sample depth, borehole number, and type of preservative (if any) were documented on the forms. Copies of the original forms are in Appendix A.

3.5 Grouting

After completion of drilling, boreholes were backfilled with a cement-bentonite grout slurry. The grout consisted of 20 parts cement to 1 part bentonite with a maximum of 8 gallons of water per sack of cement. Grout materials were mixed on site and pumped through the dual-wall casing beginning at the bottom of a borehole and working upward. A slurry pump was used for grout placement.

3.6 Decontamination Procedures

Decontamination procedures developed for drilling and sampling equipment and personnel are discussed below.

3.6.1 Drilling Equipment

A central decontamination area had previously been constructed northeast of the lagoons (Figure 1-1). The decontamination pad has a grate-covered water collection sump. Water for washing or steam cleaning of equipment was pumped from the collection sump for disposal in open evaporation basins located approximately 110 feet to the east. The drill rig, cyclone assembly, tools, and equipment were steam-cleaned at the central decontamination area before drilling began and after completion of the drilling program.

During the drilling program, the tires and the back of the rig were steam cleaned on plastic sheets at the edge of the washout lagoons. This procedure was done after the completion of each borehole to prevent spreading of contaminated soil beyond the perimeter of the lagoons. Wash water was allowed to flow back into the lagoons. In addition, the back portion of the drill rig, cyclone assembly, tools, and equipment were steam-cleaned at the central decontamination area after completion of each borehole.

3.6.2 Sampling Equipment

The split-barrel samplers, trowels, and other sampling equipment were steam-cleaned at the central decontamination area prior to drilling and after completion of each borehole. This wastewater was discharged to the open evaporation basins located adjacent to the decontamination pad. Sampling equipment was also decontaminated within the washout lagoons after collection of each sample by brushing, rinsing (using well No. 3 water), and then triple rinsing with organic-free deionized water. The wash water (approximately 50 gallons) was contained in drums and later discharged into the lagoons upon completion of the drilling and sampling program.

3.6.3 Personnel

A decontamination station was established in the contamination reduction zone (CRZ). All personnel performing drilling and sampling activities exited through the CRZ.

Protective clothing was removed, and boots and gloves were washed whenever personnel left the CRZ. A double boot and glove wash and a disposable clothing container were utilized within the decontamination station. Additional clean water was available for washing hands before leaving the site. Used personal protective clothing was placed in labeled drums that were transferred to the storage area adjacent to the evaporation tanks.

3.7 Demobilization

The drill rig and equipment were steam cleaned following completion of the subsurface investigation and prior to leaving the UMDA. The berms surrounding the lagoons and other surficial materials disturbed during drilling activities were restored. The decontamination area was cleaned prior to demobilization. Water from the decontamination area collection sump was pumped into the open evaporation tanks. Access passes and keys were returned to UMDA personnel upon completion of field activities.

10020B01.SEA

Chapter 4
Sample Analysis

Chapter 4
Sample Analysis

Prior studies at the Explosive Washout Lagoons have shown that soils and groundwater are contaminated by explosives and nitrate/nitrite. These contaminants have been designated as the potential contaminants of concern for the site RI/FS (Dames & Moore, 1990b).

All samples from the four boreholes were analyzed for the explosives HMX, RDX, 1,3,5-TNB, 1,3-DNB, NB, tetryl, 2,6-DNT, 2,4-DNT, and 2,4,6-TNT, and for nitrate/nitrite. Samples collected from depths of 0 feet, 4 feet, and 10 feet were analyzed for all analytes listed in Table 4-1. In addition to explosives, the list of analytes includes various inorganics, organic chemical compounds, percent moisture, pH, and total organic carbon (TOC).

Water used for decontamination was also analyzed for the list of analytes in Table 4-1, as were samples of rinsate water collected to verify the thoroughness of decontamination. Trip blank water samples were analyzed for TCL volatiles.

Chemical analysis was conducted according to USATHAMA standards and procedures. The analytical work was administered by USATHAMA, and samples were analyzed by ESE, a USATHAMA CLASS laboratory.

4.1 Methods of Analysis

Soil samples were analyzed according to procedures developed by USATHAMA as part of the Quality Assurance program. Detection and quantification limits were set as specified in the USATHAMA Quality Assurance program.

Explosive ordnance analyses were performed using high-pressure liquid chromatography coupled with an ultraviolet detector. The method of analysis is similar to EPA Method 8330 with a modified extraction precedure. Nitrate/nitrite concentrations were determined by colorimetric techniques (EPA Method 3532).

Sample alkalinity was determined using a titrametric method. An acid digestion followed by an inductively coupled plasma atomic emission spectroscopy (ICP) analysis was done for most metals (EPA Method 6010). Arsenic, selenium, and lead were analyzed (EPA Methods 7060, 7740, and 7421, respectively) using graphite furnace atomic absorption spectrometry (GFAA), and mercury was analyzed (EPA Method 7471) by cold vapor atomic absorption (AA).

Table 4-1 Analyte List
Explosives 2,4,6-TNT 2,4-DNT 2,6-DNT Tetryl RDX HMX 1,3,5-TNB 1,3-DNB NB
Inorganics Nitrate/Nitrite Alkalinity (carbonate, bicarbonate) Trace Elements (Al, Ba, Be, Cd, Cr, Co, Cu, Sb, As, Pb, Hg, Se, Ag, V, Ni, Tl, Zn) Major Elements (Ca, Mg, K, Na, Fe, Mn)
Organics Organochlorine Pesticides PCBs TCL Semivolatiles TCL Volatiles
Others Percent Moisture pH TOC
Note: All soil samples were analyzed for explosives and nitrate/nitrite. In addition, samples taken from the surface, at 4 feet and at 10 feet were analyzed for inorganics, organics, pH, TOC, and percent moisture.

10020B11.SEA

Pesticide and PCB analyses of water samples utilized gas chromatography (GC) coupled with an electron capture detector using liquid-liquid extraction (EPA Method 8270). Semivolatiles were analyzed by liquid-liquid extraction and gas chromatography/mass spectrometry (GC/MS) using EPA Method 8270. Volatile organics were analyzed by purge and trap GC/MS (EPA Method 8240). Total organic carbon was determined using a TOC analyzer with an ultraviolet detector (EPA Method 9060).

10020B0F.SEA

Chapter 5
Field and Laboratory Results

Chapter 5
Field and Laboratory Results

The results of field investigations and laboratory analyses conducted during the WLSSI include detailed physical descriptions of the soil profile and chemical data from laboratory analysis of soil samples. Lithologic logs of the four boreholes (S4B-5, S4B-6, S4B-7, and S4B-8) are presented in Appendix B. The complete set of laboratory data is in Appendix C.

5.1 Site-Specific Geology

A lithogic profile showing the fluvial depositional environment in the vicinity of the lagoons is presented in Figure 5-1. The locations of boreholes drilled are shown in Figure 5-2.

Soils beneath the Explosive Washout Lagoons consist of admixtures of sand and gravel to the penetrated depth of approximately 50 feet. Sand varies from fine to coarse, well-graded to poorly graded, and clean to silty. The gravel fraction is typically fine-grained, having diameters of 1/4 to 1/2 inch and is typically subangular. Minor amounts of silt were encountered as occasional thin seams ranging from 1 inch to 24 inches thick and as admixtures with sand and gravel. The water table was encountered at depths of 47 to 48 feet below the bottom of the lagoons.

In boreholes S4B-5, S4B-6, and S4B-8, clean, fine sand was encountered in the uppermost 5 to 7 feet. Borehole S4B-7 encountered more variability in textures ranging from fine to coarse, and clean to silty sand. Soils generally consist of gravelly sand below a depth of 25 to 35 feet.

The sediments underlying the lagoons were deposited in a fluvial environment. The lack of coarse gravel, cobbles and boulders, and the presence of silt suggest an area of quiet deposition as compared to the torrential flood gravels deposited elsewhere at the UMDA. The complex nature of the fluvial system does not lend to correlation of sediments between boreholes. No persistent marker beds were identified.

5.1.1 Lithologic Logs

Cuttings were logged in accordance with the Unified Soil Classification System (American Society for Testing and Materials [ASTM] 1991) by the geologist in charge of drilling activities. Logs describing the lithology of soils from each borehole are in Appendix B.

5.2 Laboratory Results of Soil Samples

All soil samples taken from boreholes S4B-5, S4B-6, S4B-7, and S4B-8 were analyzed for a selected suite of explosives and nitrate/nitrite. In addition, samples taken at depths of 0, 4, and 10 feet were analyzed for the total list in Table 4-1. The laboratory results for various analytes are discussed in the following sections, and the complete data set is in Appendix C. Graphs showing concentrations of explosives and nitrate/nitrite vs. depth are presented in Appendix D.

5.2.1 Explosives

During the WLSSI, soil samples were analyzed for a selected suite of explosives including, 1,3,5-TNB, 1,3-DNB, 2,4,6-TNT, 2,4-DNT, 2,6-DNT, HMX, RDX, NB, and tetryl. The laboratory results for explosives and nitrate/nitrite are summarized in Table 5-1.

The explosives detected most frequently and in greatest concentration were 1,3,5-TNB, 2,4-DNT, 2,4,6-TNT, HMX, and RDX. Tetryl was not detected, and 1,3-DNB, 2,6-DNT, and NB were detected in only a few samples and at relatively low concentrations, which is similar to the findings of previous investigations outside the lagoons (Table 2-3). The following discussions address the contaminants most frequently detected during the WLSSI.

5.2.1.1 1,3,5-TNB

Detectable concentrations of 1,3,5-TNB were found in every soil sample taken beneath the lagoons (Table 5-1). Concentrations ranged from 1.87 to 47.0 µg/g, but most levels were between 10 and 40 µg/g. Figure D-1 shows that levels of 1,3,5-TNB in soil samples generally increased below a depth of 5 feet, remained fairly constant between 5 and 40 feet, and decreased below a depth of 40 feet.

5.2.1.2 2,4,6-TNT

Levels of 2,4,6-TNT ranged from below detection (<0.456 µg/g) to 1,400 µg/g, but most concentrations were between 5 and 30 µg/g. The highest levels (520 to 1,400 µg/g) were detected in samples taken at 0 and 2 feet from boreholes S4B-6, S4B-7, and S4B-8. Concentrations of 2,4,6-TNT vs. depth were plotted on both arithmetic and log arithmic (log) scales (Figures D-2 and D-3). The log scale allows the display of the full range of concentrations of 2,4,6-TNT detected in soil samples.

Figures D-2 and D-3 show that levels of 2,4,6-TNT decrease rapidly between 4 and 10 feet. There was a slight but steady increase in concentrations between 10 and 50 feet below the bottoms of the lagoons (Figure D-3).

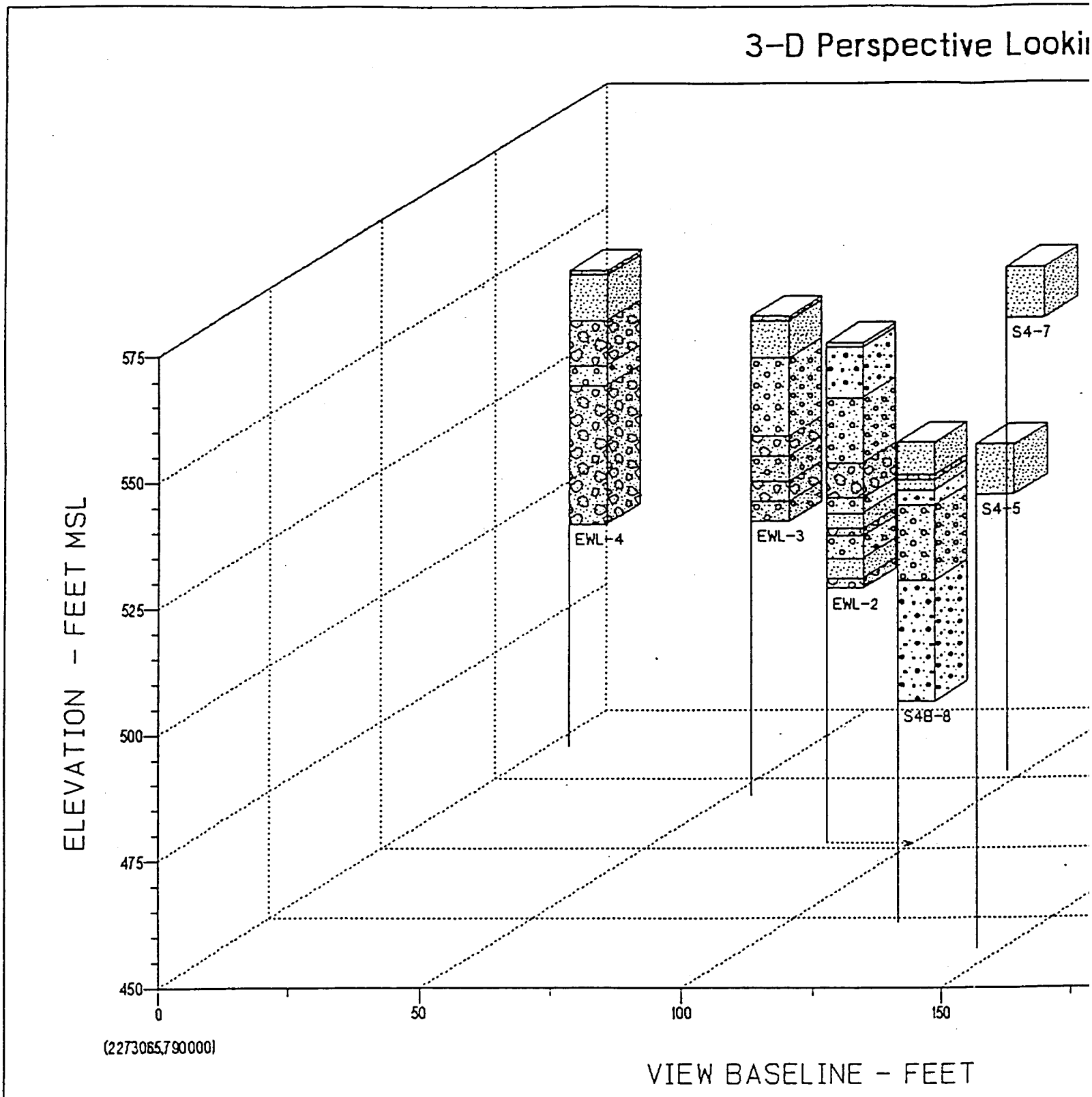
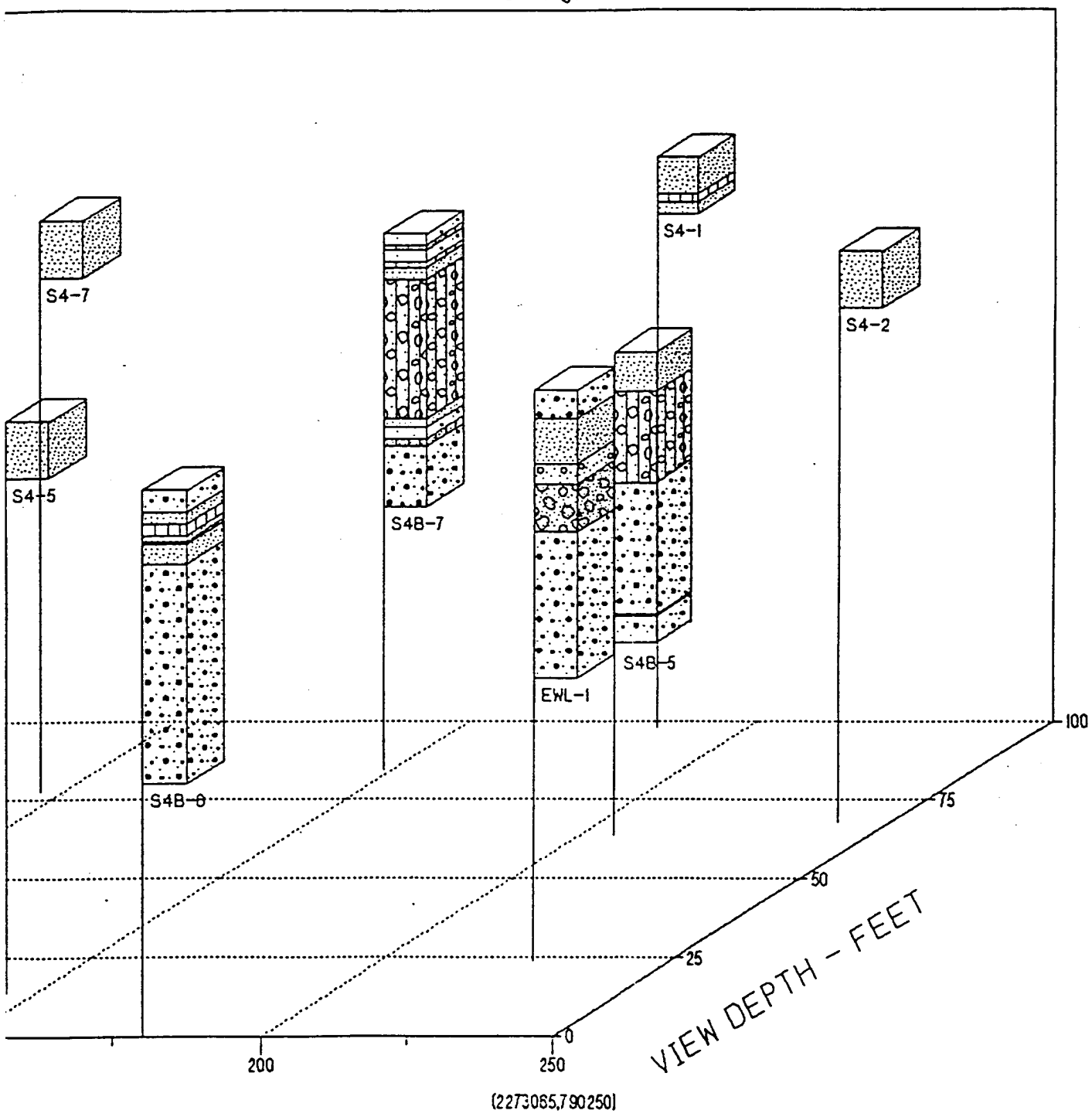


Figure 5-1 – Lithologic Pr

e Looking West

* Symbols for lithologic profiles are described on borehole logs – Appendix B.
* Borehole EWL-2 repositioned 17 ft south to allow unobstructed view.
* See Figure 5-2 for borehole locations.



logic Profile of Boreholes

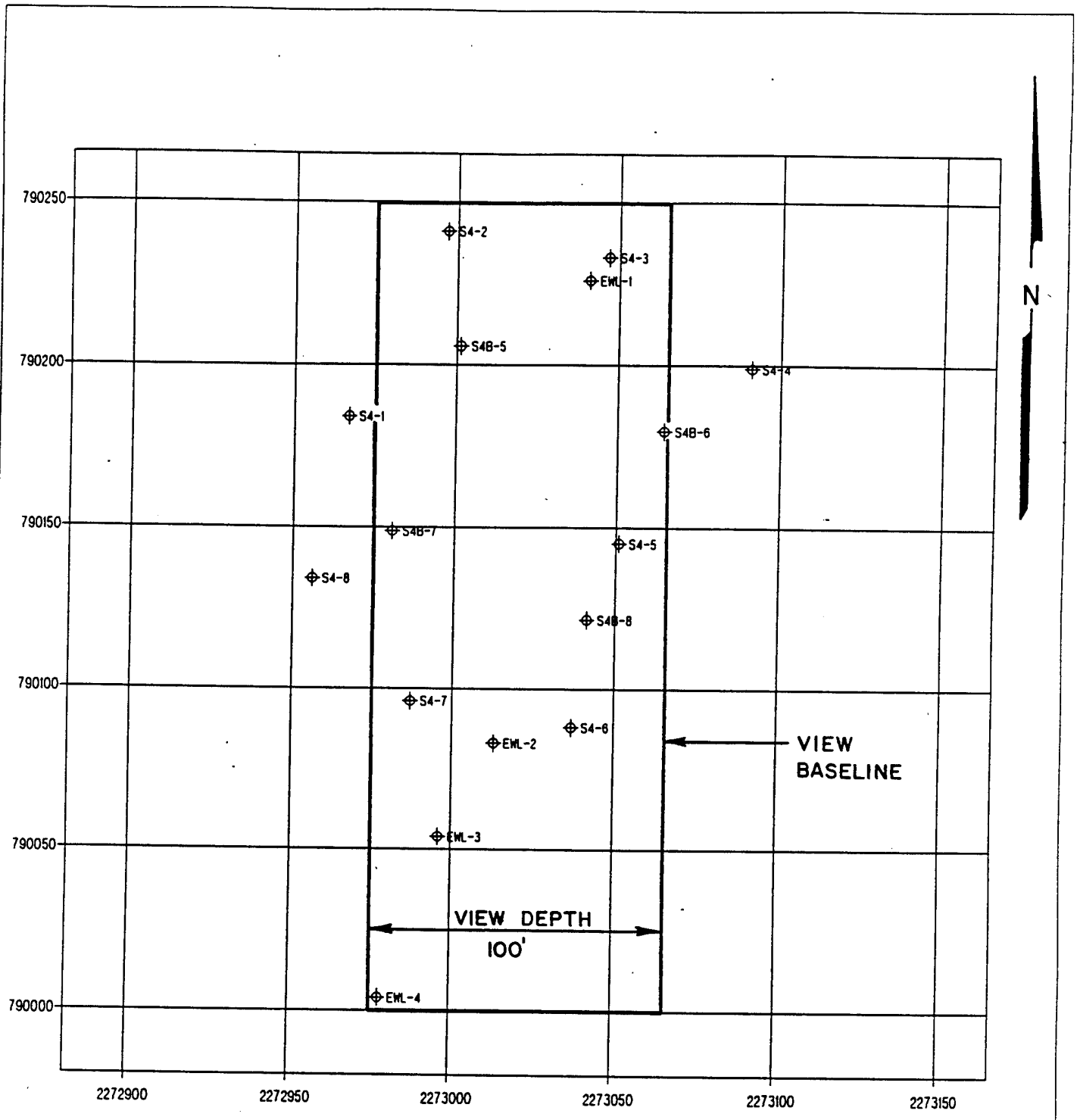


FIGURE No. 5-2

VIEW PERSPECTIVE OF LITHOLOGIC PROFILE

Table 5-1
Concentrations of Explosives and Nitrate/Nitrite in Soils (µg/g), WLSSI (1992)

Site ID	Depth[a]	NIT[b]	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	TETRYL
S4B-5	0	11.0	2.51	<0.496	3.62	<0.424	<0.524	<0.666	200.0	<2.41	<0.731
	2	5.20	8.59	<0.496	1.47	<0.424	<0.524	1.61	110.0	<2.41	<0.731
	4	1.82	9.88	<0.496	<0.456	<0.424	<0.524	<0.666	6.01	<2.41	<0.731
	6	11.0	12.9	<0.496	<0.456	<0.424	<0.524	<0.666	11.3	<2.41	<0.731
	8	6.82	29.0	<0.496	3.02	0.916	<0.524	2.29	16.7	4.30	<0.731
	10	37.0	34.0	<0.496	8.84	4.45	<0.524	<0.666	19.2	<2.41	<0.731
	15	90.0	40.0	<0.496	12.0	4.14	<0.524	30.3	22.0	<2.41	<0.731
	20	34.0	36.0	0.747	9.88	<0.424	<0.524	19.4	21.3	<2.41	<0.731
	25	56.0	34.0	<0.496	12.9	<0.424	<0.524	25.4	33.0	<2.41	<0.731
	30	60.0	24.0	<0.496	5.63	<0.424	<0.524	13.9	18.3	<2.41	<0.731
	30[c]	63.0	26.1	<0.496	7.05	2.40	<0.524	13.6	20.3	<2.41	<0.731
	35	27.0	33.0	0.628	11.5	<0.424	5.56	<0.666	31.0	<2.41	<0.731
	40	27.0	30.0	<0.496	15.0	<0.424	3.81	<0.666	33.0	<2.41	<0.731
	45	3.25	14.8	<0.496	24.0	<0.424	2.45	<0.666	3.52	<2.41	<0.731
	50	3.54	8.0	<0.496	10.1	<0.424	0.872	<0.666	2.73	<2.41	<0.731

Table 5-1
Concentrations of Explosives and Nitrate/Nitrite in Soils (µg/g), WLSSI (1992)

Site ID	Depth[a]	NIT[b]	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	TETRYL
S4B-6	0	21.0	23.6	<0.496	520.0	<0.424	<0.524	47.0	1400.0	<2.41	<0.731
	2	20.0	23.0	<0.496	980.0	<0.424	<0.524	27.0	1500.0	<2.41	<0.731
	2[c]	22.0	27.0	<0.496	780.0	<0.424	<0.524	32.5	1900.0	<2.41	<0.731
	4	13.0	22.1	<0.496	1.11	<0.424	<0.524	3.64	150.0	<2.41	<0.731
	6	24.0	39.0	<0.496	<0.456	0.720	0.708	<0.666	14.2	<2.41	<0.731
	8	14.0	20.7	<0.496	<0.456	<0.424	0.686	2.33	8.48	<2.41	<0.731
	10	3.41	18.8	<0.496	<0.456	<0.424	<0.524	<0.666	4.76	<2.41	<0.731
	15	1.88	27.0	<0.496	14.1	<0.424	1.31	3.03	10.1	<2.41	<0.731
	20	3.24	26.0	<0.496	6.55	<0.424	1.53	9.35	13.5	<2.41	<0.731
	25	3.92	7.73	<0.496	6.97	<0.424	<0.524	5.82	6.55	<2.41	<0.731
	30	2.83	9.30	<0.496	7.63	0.764	<0.524	7.12	9.0	<2.41	<0.731
	35	4.70	30.0	<0.496	8.62	1.49	<0.524	13.2	23.1	<2.41	<0.731
	40	6.20	32.0	<0.496	13.2	2.62	<0.524	15.6	31.0	<2.41	<0.731
	45	3.55	14.7	<0.496	14.1	1.70	<0.524	10.2	6.06	<2.41	<0.731
	50	1.80	18.0	<0.496	27.0	2.47	<0.524	19.0	5.15	<2.41	<0.731

Table 5-1
Concentrations of Explosives and Nitrate/Nitrite in Soils (µg/g), WLSSI (1992)

Site ID	Depth[a]	NIT[b]	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	TETRYL
S4B-7	0	0.71	17.0	<0.496	1400.0	<0.424	<0.524	<0.666	3.38	<2.41	<0.731
	2	0.75	21.0	<0.496	1300.0	<0.424	<0.524	3.35	12.6	<2.41	<0.731
	4	4.18	18.0	<0.496	0.796	<0.424	<0.524	<0.666	59.0	<2.41	<0.731
	6	30.0	47.0	<0.496	1.04	0.683	<0.524	<0.666	36.0	<2.41	<0.731
	8	9.66	23.0	<0.496	1.41	0.614	<0.524	<0.666	2.78	<2.41	<0.731
	10	66.0	39.0	<0.496	4.23	2.65	<0.524	11.4	28.0	<2.41	<0.731
	15	100.0	39.0	<0.496	34.0	16.2	<0.524	47.0	80.0	<2.41	<0.731
	20	45.0	1.87	<0.496	4.36	3.04	<0.524	5.13	93.0	<2.41	<0.731
	25	29.0	22.9	<0.496	11.4	2.93	<0.524	16.4	30.0	<2.41	<0.731
	30	30.0	40.0	<0.496	20.2	3.96	<0.524	21.9	65.0	<2.41	<0.731
	35	72.0	20.9	<0.496	2.16	1.21	<0.524	3.67	9.68	<2.41	<0.731
	40	66.0	38.0	0.999	4.57	2.34	<0.524	7.93	12.6	<2.41	<0.731
	45	3.19	18.0	0.547	24.0	3.47	<0.524	13.0	2.91	<2.41	<0.731
	45[c]	3.77	19.0	<0.496	27.0	4.41	<0.524	14.8	3.24	<2.41	<0.731

Table 5-1
Concentrations of Explosives and Nitrate/Nitrite in Soils (µg/g), WLSSI (1992)

Site ID	Depth[a]	NIT[b]	135TNB	13DNB	246TNT	24DNT	26DNT	HMX	RDX	NB	TETRYL
S4B-8	0	1.51	20.0	<0.496	740.0	<0.424	<0.524	9.83	13.4	<2.41	<0.731
	2	0.618	8.35	<0.496	13.9	<0.424	<0.524	<0.666	1.73	<2.41	<0.731
	4	0.739	13.7	<0.496	19.7	<0.424	<0.524	<0.666	<0.587	<2.41	<0.731
	6	<0.60	15.3	<0.496	1.99	<0.424	<0.524	<0.666	1.67	<2.41	<0.731
	8	1.22	9.29	<0.496	0.612	<0.424	<0.524	<0.666	<0.587	<2.41	<0.731
	10	34.0	13.0	<0.496	8.03	2.18	<0.524	1.60	2.13	<2.41	<0.731
	15	38.0	17.8	<0.496	7.85	2.51	<0.524	1.84	10.9	<2.41	<0.731
	15[c]	44.0	17.9	<0.496	7.17	2.54	<0.524	2.05	11.1	<2.41	<0.731
	20	51.0	27.0	<0.496	11.4	4.30	<0.524	2.84	15.2	<2.41	<0.731
	25	32.0	40.0	<0.496	25.0	6.90	<0.524	6.56	29.0	<2.41	<0.731
	30	36.0	21.7	<0.496	7.68	2.62	<0.524	2.20	7.26	<2.41	<0.731
	35	30.0	40.0	<0.496	29.0	3.75	<0.524	6.04	11.4	<2.41	<0.731
	40	31.0	35.0	<0.496	38.0	4.41	<0.524	9.37	23.1	<2.41	<0.731
	45	14.0	36.0	<0.496	19.7	3.37	<0.524	15.6	3.91	<2.41	<0.731
	50	3.89	19.0	<0.496	15.1	2.29	<0.524	7.93	<0.587	<2.41	<0.731

[a]Depth in feet below land surface.
[b]NIT = nitrate + nitrite as N.
[c]Duplicate sample.
Note: Concentrations greater than the detection limited are highlighted by shading.

5.2.1.3 2,4-DNT

Relatively low levels of 2,4-DNT were detected in soil samples taken beneath the lagoons, and concentrations ranged from below detection (<0.424 µg/g) to 16.2 µg/g. Table 5-1 shows that 2,4-DNT was detected most frequently in the samples from boreholes S4B-7 and S4B-8 (south lagoon), and few detections were reported in samples from boreholes S4B-5 and S4B-6 (north lagoon).

Concentrations of 2,4-DNT were below detection in the upper 8 feet of the soil profile in nearly every sample. Detectable levels were found below 8 feet. The results from previous investigations outside the lagoons (Table 2-3) showed 2,4-DNT was most commonly found in samples taken at or near the water table.

5.2.1.4 HMX

Concentrations of HMX ranged from below detection (<0.666 µg/g) to 47.0 µg/g (Table 5-1). The highest concentrations were detected in the near-surface samples from borehole S4B-6 (47.0 µg/g) and in the sample taken at a depth 15 feet from borehole S4B-7 (47.0 µg/g). Relatively high concentrations of HMX were also detected in the samples taken at depths between 15 and 30 feet from boreholes S4B-5 and S4B-7 (Figure D-5).

Figure D-5 shows a similar distribution of HMX in boreholes S4B-5 and S4B-7. A similar pattern of the distribution of HMX is also evident for S4B-6 and S4B-8. Boreholes S4B-6 and S4B-8 are at the east ends of the lagoons, and S4B-5 and S4B-7 are at the west ends of the lagoons.

5.2.1.5 RDX

Concentrations of RDX detected in soil samples were relatively variable, and the results were plotted vs. depth on both arithmetic and log scales (Figures D-6 and D-7). The highest levels of RDX were detected in the near-surface samples from boreholes S4B-5 and S4B-6 (110 to 1900 µg/g) and in the samples taken between 15 and 30 feet from borehole S4B-7 (30.0 to 93.0 µg/g). Moderate levels of RDX were detected between 15 and 40 feet, and concentrations decreased below 40 feet in all boreholes (Figure D-7).

5.2.2 Nitrate/Nitrite

Soil samples were analyzed for the concentration of nitrate + nitrite, and the results were reported as total nitrogen (N). Nearly all samples showed detectable levels (>0.60 µg/g) of nitrate/nitrite (Table 5-1). Concentrations ranged from below detection in the sample taken at a depth of 6 feet from boring S4B-8, to 100 µg/g in the sample taken at a depth of 15 feet in boring S4B-7.

Figure D-8 (Appendix D) shows concentrations of nitrate/nitrite versus depth for samples taken from the four boreholes. The data indicate that concentrations were generally higher in the interval between 10 and 40 feet below land surface than in the upper 10 feet of the soil profile. The results for boreholes S4B-6 do not follow this trend. Nitrate/nitrite concentrations from S4B-6 samples were between 10 and 25 μg/g in the upper 8 feet of the borehole and generally less than 5 μg/g below a depth of 10 feet.

Data generated during an ongoing study of soil chemistry at UMDA (Appendix F) indicate that background concentrations of nitrate/nitrite are generally in the range of below detection (<0.6 μg/g) to 4 μg/g, although levels as high as 8.4 μg/g have been detected. Comparison of concentrations of nitrate/nitrite shown in Table 5-1 with background levels (see Appendix F), indicates that soils beneath the lagoons have been contaminated by the washout process.

5.2.3 Trace Elements

Soil samples taken at 0, 4, and 10 feet from each of the four boreholes were analyzed for a suite of 17 trace elements. The trace elements include Al, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, and Zn. The results of analyses for trace elements and Fe and Mn in soils are presented in Table 5-2.

Concentrations of 4 of the 17 trace elements (Sb, Cd, Hg, and Se) were below detection limits in all samples. Concentrations of detected trace elements ranged from less than 10 μg/g for As, Be, Ag, and Pb, to nearly 10,000 μg/g for Al. Levels of V, Zn, and Ba were in the range of 40 to 140 μg/g. Mn was between 300 and 525 μg/g, and Fe concentrations ranged from 21,300 to 31,000 μg/g.

Table 5-2 shows that for most trace elements, the concentrations fall within a relatively narrow range. For example, the concentration of As ranges from 0.898 to 2.59 μg/g, and Pb values range from 3.65 to 9.40 μg/g.

The data in Table 5-2 also show a slight increase in concentration with depth in the results for trace elements from the 0-, 4-, and 10-foot sample sets. The trend is present more frequently in the sample sets from boreholes S4B-6 and S4B-7 than from boreholes S4B-5 and S4B-8. For example, lead concentrations in the 0-, 4-, and 10-foot samples from S4B-6 were 3.88, 6.43, and 9.40 μg/g, respectively. The trend of increasing concentration with depth is evident in approximately 40 percent of the sample sets (Table 5-2) where detectable concentrations of trace elements were present, which may be attributed to the leaching of metals from shallow soils during the washout process.

Table 5-2
Concentrations of Trace Elements in Soils (μg/g), WLSSI (1992)

Site ID	Depth	Al	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	V	Zn
S4B-5	0	5450.0	<7.14	1.26	78.6	1.64	<0.7	7.76	12.4	11.3	22300.0	6.77	308.0	<0.05	9.48	<0.25	0.722	17.8	70.8	47.1
	4	5670.0	<7.14	1.72	94.4	1.75	<0.7	8.48	13.3	13.9	24100.0	4.3	381.0	<0.05	8.09	<0.25	1.04	31.0	78.0	52.8
	10	6050.0	<7.14	1.12	96.3	1.75	<0.7	6.21	11.8	17.4	21300.0	8.22	310.0	<0.05	5.98	<0.25	0.902	16.0	74.4	42.1
S4B-6	0	4370.0	<7.14	0.898	75.3	1.54	<0.7	5.32	11.3	15.5	21500.0	3.88	299.0	<0.05	5.74	<0.25	0.876	22.0	71.4	48.1
	4	7050.0	<7.14	2.56	97.7	2.12	<0.7	10.2	13.1	12.7	24600.0	6.43	407.0	<0.05	9.94	<0.25	0.813	23.1	70.3	53.4
	10	9660.0	<7.14	4.19	132.0	2.13	<0.7	12.9	14.7	18.3	27200.0	9.4	519.0	<0.05	12.8	<0.25	0.833	19.3	71.7	67.1
S4B-7	0	5710.0	<7.14	2.22	83.6	1.96	<0.7	8.35	13.5	13.3	23900.0	5.02	453.0	<0.05	8.37	<0.25	1.23	30.9	78.7	51.4
	4	7600.0	<7.14	2.38	91.1	2.45	<0.7	11.3	15.9	12.7	28900.0	5.82	462.0	<0.05	11.3	<0.25	1.52	28.9	89.7	62.5
	10	8370.0	<7.14	2.59	136.0	2.48	<0.7	10.5	17.1	17.1	31000.0	6.11	486.0	<0.05	9.89	<0.25	1.51	29.5	95.8	62.2
S4B-8	0	5530.0	<7.14	0.97	75.5	2.33	<0.7	8.48	14.3	11.7	26000.0	3.82	395.0	<0.05	8.28	<0.25	1.48	30.0	90.2	55.1
	4	4950.0	<7.14	1.18	77.4	2.22	<0.7	7.76	14.7	10.9	26300.0	3.71	420.0	<0.05	9.79	<0.25	1.46	31.2	91.2	55.1
	10	5150.0	<7.14	1.26	99.9	2.04	<0.7	5.39	14.1	21.1	23100.0	3.65	386.0	<0.05	7.56	<0.25	1.06	25.6	75.5	43.7

Note: Concentrations of Fe and Mn are included with the trace elements.

10020B16.SEA

WLSSI results were compared to U.S. Geological Survey (USGS) data from northeastern Oregon and background data from ongoing investigations at the UMDA (see Appendix F) to determine if concentrations of trace elements in soils beneath the lagoons were elevated as a result of the washout process. Trace elements detected in soil samples during the WLSSI include Al, As, Ba, Be, Cr, Co, Cu, Ni, Ag, Tl, Pb, V, and Zn. Fe and Mn were also detected and were included in the background comparison.

During the USGS investigation (Shacklette and Boerngen, 1984), soil samples were taken at a depth of approximately 20 cm from locations about 80 km apart throughout the conterminous United States and were analyzed for their content of elements. The arithmetic and geometric mean, the geometric deviation, and a histogram showing frequencies of analytical values were developed for 47 elements.

Data generated during an ongoing background study of soil chemistry at UMDA are in Appendix F. Ten soil samples were taken from depths of 0, 5, and 9 feet at background locations and analyzed for a series of 26 trace and major elements. The sampling depths and parameters analyzed were very similar to the approach used in the WLSSI.

The results of the comparisons indicate that levels of Al, As, Ba, Cr, Co, Cu, Ni, Ag, Tl, Zn, V, Pb, Fe, and Mn were within the range of concentrations detected in the USGS and UMDA investigations. Concentrations of these elements in soils were not elevated by the washout process.

The level of Be in soils beneath the lagoons may have been elevated by the washout process. The results of the UMDA background study, the USGS investigation, and the WLSSI for these three elements are summarized in Table G-1 (Appendix G). Be was detected in 50 percent of the soil samples taken beneath the lagoons at concentrations ranging from 2.6 to 3.2 μg/g. These levels are at least 2 to 3 times greater than concentrations reported by Shacklette and Boerngen (1984) for northeastern Oregon (Table G-1). The concentration of Be was below detection in all UMDA background soil samples.

5.2.4 Major Elements

Soil samples taken from depths of 0, 4, and 10 feet were analyzed for major elements, and the results, except for Fe and Mn, are shown in Table 5-3. The results for Fe and Mn were discussed with trace elements in Section 5.2.3. The major elements Ca, Mg, and K are essential plant nutrients. Na is not considered an essential element for plant growth.

Concentrations of major elements do not appear to have been elevated by the washout process. Ca was detected in relatively high concentrations ranging from 3,830 to 24,100 µg/g. Ca typically is the predominating cation in almost all soils (Kabata-Pendias and Pendias, 1984). Mg concentrations ranged from 3,840 to 8,120 µg/g. Relatively lower levels of K and Na were detected with concentrations ranging between 695 and 1,750 µg/g and between 282 and 510 µg/g, respectively. A trend of increasing concentration with depth is evident for some sample sets (Table 5-3).

5.2.5 TCL Volatiles and Semivolatiles

Soil samples taken at 0, 4, and 10 feet were also analyzed for TCL volatiles and semivolatiles. The results of laboratory analyses (Appendix C) show that no TCL volatiles were detected in any samples.

TCL semivolatile compounds detected include di-n-butyl phthalate and 2,4-DNT. Di-n-butyl phthalate was found in the surface sample from borehole S4B-7 at a concentration of 0.09 µg/g. This compound is associated with plastics and may be a laboratory artifact.

The explosive 2,4-DNT was detected during the GC/MS analysis for TCL semivolatiles. As discussed in Section 5.2.1.3, 2,4-DNT was also detected in the HPLC analysis for explosives. Concentrations of 2,4-DNT detected by GC/MS and by HPLC are presented in Table 5-4. The results are generally similar, although slightly higher concentrations were reported in the HPLC analysis for some samples. Both methods of analysis indicate concentrations of 2,6-DNT were below the detection limit in all samples (Table 5-4).

5.2.6 Organochlorine Pesticides

Soil samples were taken at 0, 4, and 10 feet from the four boreholes and analyzed for organochlorine pesticides. The results of analyses (Appendix C) show that concentrations of these compounds were below detection in all samples.

5.2.7 PCBs

Soil samples were collected from the four boreholes at 0, 4, and 10 feet and analyzed for PCBs. The results (Appendix C) indicate that concentrations of PCBs were below detection in all samples.

Table 5-3
Concentrations of Major Elements in Soils (µg/g), WLSSI (1992)

Site ID	Depth	Ca	Mg	K	Na
S4B-5	0	3830	4440	997	282
	4	9200	5270	905	304
	10	9770	4270	870	360
S4B-6	0	11500	3840	695	290
	4	11100	6740	1280	332
	10	14200	8120	1750	427
S4B-7	0	13100	5190	951	369
	4	11000	6990	1210	419
	10	13900	6720	1390	510
S4B-8	0	5930	4690	860	365
	4	8420	5210	769	357
	10	24100	5440	747	389

Table 5-4
Comparison of Explosives Concentrations (µg/g)
Determined by HPLC and GC/MS Analyses, WLSSI (1992)

		2,4-DNT		2,6-DNT		1,3,5-TNB	TNB (TIC)*	2,4,6-TNT	TNT (TIC)*
Site ID	Depth	HPLC	GC/MS	HPLC	GC/MS	HPLC	GC/MS	HPLC	GC/MS
S4B-5	0	<0.424	<0.14	<0.524	<0.85	2.51	ND	3.62	1.05
	4	<0.424	<0.14	<0.524	<0.85	9.88	2.1	<0.456	ND
	10	4.45	1.84	<0.524	<0.85	34.0	4.31	8.84	ND
S4B-6	0	<0.424	0.485	<0.524	<0.85	23.6	ND	520.0	738.0
	4	<0.424	<0.14	<0.524	<0.85	22.1	6.34	1.11	ND
	10	<0.424	<0.14	<0.524	<0.85	18.8	4.8	<0.456	ND
S4B-7	0	<0.424	<0.14	<0.524	<0.85	17.0	ND	1400.0	211.0
	4	<0.424	<0.14	<0.524	<0.85	18.0	6.06	0.796	ND
	10	2.65	1.13	<0.524	<0.85	39.0	6.42	4.23	ND
S4B-8	0	<0.424	0.166	<0.524	<0.85	20.0	ND	740.0	207.0
	4	<0.424	<0.14	<0.524	<0.85	13.7	ND	19.7	21.1
	10	2.18	1.35	<0.524	<0.85	13.0	ND	8.03	6.3

TIC = Tentatively identified compound.
ND = Not detected as a TIC.
*Reported as unknowns in Appendix C.

10020B1A.SEA

5.2.8 Tentatively Identified Compounds (TICs)

A list of tentatively identified compounds (TICs) from the GC/MS analysis of soil samples taken at 0, 4, and 10 feet is presented in Appendix C. This list includes trinitrotoluene (TNT), trinitrobenzene (TNB), unknown cyclohexanes, and other organic compounds. Concentrations of TICs range from 0.311 μg/g chloroform in the surface sample from borehole S4B-5 to 738 μg/g TNT in the surface sample from borehole S4B-6. Either TNT or TNB was tentatively identified in all samples analyzed by GC/MS.

Soil samples were also analyzed for TNB and TNT using HPLC (Section 5.2.1). Table 5-4 indicates that levels of TNT and TNB determined by GC/MS do not always compare with results determined by HPLC. TNT and TNB were not detected by GC/MS when these compounds were positively identified by HPLC.

Some TICs appear to be co-contaminants or degradation products of explosives. The remaining are relatively low in concentration, generally less than 10 μg/g (Appendix C).

5.2.9 pH

Soil pH ranged from 7.6 to 8.4 (Table 5-5). The slight to moderate alkalinity is common for mineral soils in arid regions (Brady, 1974). The soil pH is relatively uniform in the 0-, 4-, and 10-foot samples, and there is no obvious trend with depth (Table 5-5).

5.2.10 Carbonate Alkalinity

The 0-, 4-, 10-foot soil samples taken during the WLSSI were analyzed for total carbonate alkalinity, and the results are presented in Table 5-5. The concentration of total carbonates ranged from below detection (<25 μg/g) to 194 μg/g.

Calcite and dolomite are the principal carbonate minerals present in soil, and most inorganic carbon is associated with these compounds. Calcite is the most widespread form of calcium carbonate present, and has a major influence on the pH of soils (Kabata-Pendias and Pendias, 1984). Comparison of pH and the concentration of total carbonates (Table 5-5) indicates a close relationship between these two parameters.

5.2.11 Moisture Content

Soil samples collected at depths of 0, 4, and 10 feet from each boring were tested for moisture content. Moisture content was obtained as a percent of wet weight after drying. Laboratory results for percent moisture are presented in Table 5-5. Moisture levels are characteristic of unsaturated soils. The sand sample collected from borehole S4B-6 at 10 feet had an anomalously high value of 16.7 percent moisture. The .

Table 5-5
Alkalinity, Moisture Content (%), pH, and Concentration of TOC in Soils, WLSSI (1992)

Site ID	Depth	Alkalinity[a]	pH	Moisture Content (%)	TOC[b]
S4B-5	0	<25	7.64	4.7	0.892
	4	48	8.19	4.8	3.33
	10	52	8.11	7.1	0.808
S4B-6	0	102	8.27	5.2	7.34
	4	46	8.19	5.4	3.6
	10	50	8.11	16.7	1.42
S4B-7	0	194	8.35	5.3	4.88
	4	50	7.87	17.5	3.12
	10	66	8.08	6.6	2.19
S4B-8	0	54	8.2	3.5	1.93
	4	50	8.4	5.4	1.18
	10	194	8.3	4.7	0.841

[a]Alkalinity = Total carbonate alkalinity (µg/g).
[b]g/kg.

sample taken at 4 feet from borehole S4B-7 had a moisture content of 17.5 percent, which is consistent for silt as logged.

5.2.12 TOC

Concentrations of TOC determined from the analysis of the 0-, 4-, and 10-foot samples are presented in Table 5-5. Concentrations ranged from 0.808 to 7.340 g/kg. The highest levels were present in the 0- and 4-foot samples from boreholes S4B-6 and S4B-7. TOC appears to be a general indicator of the concentration of total explosives, since the highest concentrations of RDX and 2,4,6-TNT were detected in the same samples from these two borings (Table 5-1).

5.3 Laboratory Results of Field QC Samples

Field quality control (QC) samples taken during the WLSSI included three trip blanks, three rinsate blanks, one water blank from UMDA well No. 3, and four duplicate soil samples. Laboratory results from field QC samples are presented in Appendix C.

Trip blanks (water samples) were analyzed for TCL volatiles, and all concentrations were below detection. Rinsate blanks (water samples) were analyzed for the analytes listed in Table 4-1, and the results show detections of major and trace elements, bromodichloromethane (3 detections), chloroform (3 detections), and toluene (2 detections).

Concentrations of bromodichloromethane, chloroform, and toluene ranged from 0.73 to 7.4 µg/L. The chloroform is most likely a laboratory artifact. Concentrations of bromodichloromethane (0.73, 1.4, and 1.5 µg/L) and toluene (1.06 and 0.73 µg/L) are not significant and were not detected in soil samples.

The major and trace elements detected in rinsate blanks included Cu, Fe, K, and Na. Concentrations of these elements are expressed in µg/L (ppb) and are much below levels detected in soils. The detections are most likely residuals from steam cleaning. The lack of explosives detected in rinsate blanks demonstrates the effectiveness of the steam cleaning process in decontaminating the sampling equipment.

The water blank from well No. 3 was also analyzed for the entire list of analytes. The major and trace elements detected include Ba, Ca, Cu, Fe, K, Mg, Mn, and Na. Concentrations of these elements are much below levels detected in soils. No TCL organic compounds were detected in the water blank.

The analysis of duplicate samples for explosives and nitrate/nitrite (Table 5-1) indicate that the ability of the laboratory to reproduce results was very good in nearly all cases.

The relative percent difference (RPD) in concentration of duplicates was generally less than 10 percent and averaged approximately 6 percent.

Chapter 6
Interpretation

Chapter 6
Interpretation

Results from laboratory analyses of soil samples taken beneath the lagoons indicate contamination is essentially limited to explosives and nitrate, although the concentration of the trace element Be was slightly elevated. At 1-2.5 μg/g, concentrations of Be were slightly above the background levels measured on Depot soils. However, they were well within the range of background concentrations (0.1-40 μg/g) reported in *Chemical Equilibria in Soils* (Lindsay, 1979). The explosives detected in highest concentration during the WLSSI were RDX and 2,4,6-TNT. Elevated levels (>100 μg/g) of these compounds were limited to soils in the first 2 to 4 feet beneath the bottoms of the lagoons, although detectable concentrations were present down to the water table at a depth of 48 feet. Concentrations of other organic and inorganic analytes were either below detection or in the range of background levels.

A series of lithologic profiles showing concentrations of explosives in soil samples are presented in Appendix E. The 3-D perspectives allow comparison of explosive concentrations in samples to the lithology described by geologists. The data plots show trends in the concentration of explosives in individual boreholes. Additionally, explosive concentrations in samples taken adjacent to the lagoons during previous investigations were compared with samples taken beneath the lagoons during the WLSSI.

Figure E-1 shows lithology and concentrations of explosives in soils along transect C-C', which parallels the west side of the lagoons. The lithology along transect D-D', which generally follows the east side of the lagoons, is identical in Figures E-2, E-3, E-4, and E-5. The concentration of explosives (1,3,5-TNB, 2,4,6-TNT, HMX, and RDX) were illustrated separately on these figures because of space limitations. Figure E-6 is a borehole location map showing the view perspectives for both transects.

No consistent marker beds were correlated between the lithologic profiles. The profiles generally show clean, fine sand with gravel in the uppermost 5 to 7 feet in all boreholes except S4B-7. Soils predominantly consist of sand below a depth of 25 to 35 feet.

Concentrations of explosives do not appear to correlate strongly with lithology on a large or macro scale. An increase in silt or sand content in boreholes did not consistently result in an increase or decrease in the concentration of explosives.

Groundwater is the suspected source of soil contamination observed near the water table in boreholes adjacent to the lagoons. Concentrations of explosives in soils slightly increase immediately above the water table in boreholes EWL-4, EWL-3, EWL-2, EWL-1, and S4-8 (Figures E-1 through E-5). Explosives-contaminated seepage has been flushed from soils and has moved laterally away from the lagoons in the groundwater system. Contaminants in groundwater appear to have been adsorbed by soils during fluctuations in the water table. The flushing also accounts for a relative

decrease in concentration of some contaminants in soil samples taken immediately above the water table and directly beneath the lagoons.

Distributions of explosive compounds (1,3,5-TNB, 2,4,6-TNT, HMX, and RDX) are often similar within individual boreholes. Similarities in the distributions of explosives are evident in boreholes S4B-5 and S4B-7 (Figure E-1). Relatively high concentrations of explosive were detected at 15 feet in S4B-7. Low concentrations of all explosives except RDX were found at 20 feet in the same borehole.

Comparison of Figures E-2, E-3, E-4, and E-5 also show similarities in distributions of explosives with depth in boreholes S4B-8 and S4B-6. The results suggest that the distribution of explosives appears to be affected by borehole-specific conditions (micro-scale lithology, permeability, distance from the movable flume, and location relative to the lagoon) rather than macro-scale lithology.

Similarities in the distribution patterns of explosives occur less frequently from borehole to borehole. The distribution of 2,4-DNT is generally similar for all boreholes within the lagoons (Figure D-4). A resemblance in the trends for RDX, 1,3,5-TNB, and 2,4,6-TNT is evident in boreholes S4B-5 and S4B-6 (Figures D-1, D-2, and D-6), and for HMX in boreholes S4B-6 and S4B-8 (Figure D-5).

The difference in concentrations for most explosives between boreholes S4-8 and S4B-7 is dramatic. Borehole S4-8 is immediately southwest of the south lagoon, and borehole S4B-7 is at the west end and inside the south lagoon (Figure 3-1). Concentrations for most explosives are below detection, except near the surface and near the water table in borehole S4-8 (Figure E-1). RDX was detected throughout the soil profile, which shows greater lateral mobility for this compound.

Figures E-2, E-3, E-4, and E-5 follow a transect that incorporates the EWL boreholes from a previous investigation (Roy F. Weston, Inc., 1991). Concentrations of explosives shown on the profiles in areas outside the lagoons are significantly lower than concentrations beneath the lagoons. The difference is dramatic for all explosives. Highest concentrations of explosives outside the lagoons are in borehole EWL-2, which is immediately south of the south lagoon. The results confirm that lateral migration of contaminants above the water table is not significant. Migration appears to be primarily vertical as a result the relatively high permeability of soils beneath the lagoons.

10020B1E.SEAq

Chapter 7
Summary and Conclusions

Chapter 7
Summary and Conclusions

The WLSSI was performed to determine the distribution and concentration of explosives, their metabolites, and co-contaminants in soils directly beneath the Explosive Washout Lagoons at UMDA. Field work was done November 1 through 4, 1991. Four boreholes were drilled, and soils were sampled at pre-determined depths.

All samples were analyzed for a selected suite of explosives and nitrate/nitrite. Near-surface samples were also analyzed for TCL volatiles and semivolatiles, trace and major elements, pesticides, PCBs, TOC, pH, and percent moisture. The results have been correlated with data from previous investigations to develop a more complete understanding of the nature and extent of subsurface contamination.

Boreholes were drilled using the dual-wall reverse air circulation method. This method had been used successfully in previous investigations at UMDA. Boreholes were advanced to the intersection of the underlying water table which occurred at approximately 50 feet below the bottom of the lagoons. Approximately 14 soil samples were collected from each borehole using a split-barrel sampler.

Soils beneath the lagoons consist of admixtures of sand and gravel. Sand varies from fine to coarse, well graded to poorly graded, and clean to silty. Minor amounts of silt were encountered as occasional thin seams and as admixtures with sand and gravel. Boreholes generally encountered clean, fine sand in the uppermost 5 to 7 feet and fine to coarse sand below a depth of 25 to 30 feet. No persistent marker beds were identified.

Laboratory analyses of soil samples taken beneath the lagoons indicate contamination is essentially limited to explosives and nitrate, although the concentration of the trace element Be was slightly elevated. At 1-2.5 µg/g, concentrations of Be were slightly above the background levels measured on Depot soils. However, they were well within the range of background concentrations (0.1-40 µg/g) reported in *Chemical Equilibria in Soils* (Lindsay, 1979). Concentrations of other organic and inorganic analytes were either below detection or in the range of background levels.

Explosives detected most frequently and in greatest concentration were 1,3,5-TNB, 2,4-DNT, 2,4,6-TNT, HMX, and RDX. Tetryl was not detected, and 1,3-DNB, 2,6-DNT, and NB were detected in only a few samples and at relatively low concentrations, similar to previous investigations outside the lagoons.

RDX and 2,4,6-TNT were detected at high concentrations (110 to 1900 µg/g) in near surface samples. Relatively high concentrations (30.0 to 93.0 µg/g) of RDX were also detected between 15 and 30 feet in borehole S4B-7. Moderate levels of 1,3,5-TNB, 2,4,6-TNT, HMX, and RDX were detected throughout the soil profile. Concentrations

of 2,4-DNT were relatively low, and detections were generally limited to samples taken below a depth of 8 feet beneath the lagoons.

Nearly all samples showed detectable levels of nitrate/nitrite, and the highest concentration was 100 μg/g. Concentrations were generally higher in the interval between 10 and 40 feet below the surface than in the upper 10 feet of the soil profile.

Concentrations of explosives do not appear to correlate strongly with lithology on a large (macro) scale. An increase in silt or sand content in boreholes did not consistently result in an increase or decrease in the concentration of explosives. The results suggest that the distribution of explosives appears to be more strongly affected by borehole-specific conditions (micro-scale lithology, permeability, distance from the movable flume, and location relative to the lagoon) rather than by macro-scale lithology.

Groundwater is the suspected source of soil contamination observed near the water table in boreholes adjacent to the lagoons. Explosives-contaminated seepage has been flushed from soils and has moved laterally away from the lagoons in the groundwater system. Contaminants in groundwater appear to have been adsorbed by soils during fluctuations in the water table. The flushing also accounts for a relative decrease in concentration of some contaminants in soil samples taken immediately above the water table and directly beneath the lagoons.

The difference in concentration of explosives in soils from areas outside the lagoons versus concentrations beneath the lagoons is dramatic. The results confirm that lateral migration of contaminants above the water table is not significant. Migration appears to be primarily vertical, a result of the relatively high permeability of soils beneath the lagoons.

10020B20.SEA

Chapter 8
Bibliography

Chapter 8
Bibliography

Ana-Lab Corporation. *Groundwater Monitoring Report*. Prepared for Umatilla Army Depot Activity. November 1988.

ASTM. *Standard Test Method for Classification of Soils for Engineering Purposes*. Designation D2487-90, Annual Book of ASTM Standards. Pp. 309-318. 1991.

Brady, N.C. *The Nature and Properties of Soils*. MacMillan Publishing Co., Inc. New York, New York. 1974.

Century Environmental Services. *Groundwater Monitoring Report*. Umatilla Army Depot Activity. Prepared for Umatilla Army Depot Activity (UMDA), Hermiston, Oregon. March 1986a.

_____. *Groundwater Monitoring Report*. Umatilla Army Depot Activity. Prepared for UMDA, Hermiston, Oregon. August 1986b.

Century West Engineering Corporation. *Groundwater Monitoring Report*. Umatilla Army Depot Activity. Prepared for UMDA, Hermiston, Oregon. February 1987a.

_____. *Groundwater Monitoring Report*.. Umatilla Army Depot Activity. Prepared for UMDA, Hermiston, Oregon. August 1987b.

CH2M HILL and Morrison Knudsen Environmental Services (MKES). *Field Sampling Work Plan Explosive Washout Lagoons, Site 4, Technical and Environmental Management Support of Installation Restoration Technology Development Program, Umatilla Depot Activity*. Battelle Environmental Management Operations Task Order 142134, Master Agreement 05790-A-D1. 1991.

Dames & Moore. *Final Part A: RI/FS Work Plan-Remedial Investigation/Feasibility Study of the Umatilla Depot Activity Hermiston, Oregon*. U.S. Army Toxic and Hazardous Materials Agency. Contract No. DAAA15-88-D-008. 1990.

_____. *Final Enhanced Preliminary Assessment for Umatilla Depot Activity*. Vol. 1, Section 1.0-Section 6.2.2. U.S. Army Toxic and Hazardous Materials Agency. Contract No. DAAA 15-88-D-008. 1990a.

_____. Final Part B: Field Sampling Plan-Remedial Investigation/Feasibility Study of the Umatilla Depot Activity, Hermiston, Oregon. Vol. 1, Sections 1.0-4.2. U.S. Army Toxic and Hazardous Materials Agency. Contract No. DAAA 15-88-D-0008. 1990b.

———————. *Final Part B: Field Sampling Plan-Remedial Investigation/Feasibility Study of the Umatilla Depot Activity, Hermiston, Oregon.* Vol. 1, Sections 4.3-9.0. U.S. Army Toxic and Hazardous Materials Agency. Contract No. DAAA 15-88-D-0008. 1990c.

———————. *Final Part B: Field Sampling Plan-Remedial Investigation/Feasibility Study of the Umatilla Depot Activity, Hermiston, Oregon.* Vol. 3, Appendixes A-F. U.S. Army Toxic and Hazardous Materials Agency. Contract No. DAAA 15-88-D-0008. 1990d.

———————. *Draft Final Interim Risk Assessment for the Explosive Washout Lagoons (Site 4) Umatilla Depot Activity, Hermiston, Oregon.* U.S Army Toxic and Hazardous Materials Agency. Contract No. DAAA 15-88-D-0008. 1991.

Dawson, G.W., S.M. Meuser, and R. Schalla. *Environmental Contamination Survey and Assessment of Umatilla Army Depot Activity (UMDA).* Report No. DRXTH-FS-CR-82127. Battelle Northwest Laboratories prepared for U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland. 1982.

Farooqui, S.M., et al. Post Columbia River Basalt Group Stratigraphy and Map Compilation of the Columbia Plateau, Oregon. Open-File Report 0-81-10. Oregon Department of Geology and Mineral Industries. 1981.

Kabata-Pendias, A., and H. Pendias. *Trace Elements in Soils and Plants.* CRC Press, Inc. Boca Raton, Florida. 1984.

Lindsay, Willard L. *Chemical Equilibria in Soils.* John Wiley and Sons. New York, New York. 1979.

Norton, M.A., and W.S. Bartholomew. *Update of Groundwater Conditions and Declining Water Levels in the Butter Creek Area, Morrow and Umatilla Counties, Oregon.* Groundwater Report 30. Oregon Water Resources Department. 1984.

Roy F. Weston, Inc. *Umatilla Army Depot Activity Remedial Investigation.* Draft Final. Report No. CETHA-IR-CR-89038. Prepared for U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland. 1989.

———————. *Interim Technical Report for the Composting Optimization Field Study at Umatilla Army Depot Activity (UMDA).* Prepared for U.S. Army Toxic and Hazardous Materials Agency. Contract DAAA 15-88-D-0010. Work Order 2281-08-10. 1991.

Shacklette, H.T., and J.G. Boerngen. *Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States.* U.S. Geological Survey Professional Paper 1270. 1984.

U.S. Environmental Protection Agency (EPA). *Installation Assessment*. Umatilla Army Depot Activity, Oregon. TS-PIC,0066. Environmental Monitoring Systems Laboratory. 1981.

Walker, B.W. Geologic Map of Oregon East of the 121st Meridian. Miscellaneous Investigations, Series Map I-902. U.S. Geological Survey. 1977.

10020B22.SEA

Appendix A
Chain-of-Custody Forms

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6971

Project No.: MK-3843

Project Name: UMATILLA WASHOUT LAGOONS

Samplers: (Signature)

Sampler: (Print) BRIAN MARKEN / ALLEN BENEDA

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Explosives	Semi Volatiles	Pesticides/PCB	Metals	Alkalinity	Anions F	Volatiles	Remarks
WATER	DRILL BIT RINSATE	11-1-91	16:00	RNSW2		X	X		X		X		X		X		X					
"	TRIP BLANK 1																X					

Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Brian Marken / MK	11-2-91 12:00				
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date / Time	Total No. Samples this Shipping Container:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:		Date / Time	

A-1

810155-86

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6971

Project No.: MK-3843

Project Name: UMATILLA DEPOT WASHOUT LAGOON

Samplers: (Signature)

Sampler: (Print) BRIAN MARKEN / ALLEN BENFER

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Explosives	Semi-Volatiles	Pesticides	Metals	Alkalinity	Bi-ions +	Volatiles	Remarks
WATER	WELL 3 - WATER TRUCK TANK	11-2-91	10:00	RNSW 5		X	X		X		X		X		X		X			

Analysis Required

Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Brian Marken MKE	11-2-91 12:00				
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date / Time	Total No. Samples this Shipping Container:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:		Date / Time	

A-2

10155-BL

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6971

Project No.: MK-384B

Project Name: UMATILLA DEPOT · WASHOUT LAGOONS

Samplers: (Signature)

Sampler: (Print) BRIAN MARKHAM / ALLAN BENFER

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Analysis Required: Explosives	Analysis Required: Nitr-Explosives	Remarks
SOIL	BORING 007	11-1-91	16:35	S04B007D		X	X	X	
"	" "	11-1-91	16:50	S04B007Z		X	X		
"	" "	11-1-91	17:00	S04B007Y		X	X	X	
SOIL	BORING 007	11-2-91	07:35	S04B007 6		X	X		
"	" "	11-2-91	08:25	S04B007 B		X	X		
	BORING "	11-2-91	10:00	S04B007 1D		X	X	X	
"	" "	11-2-91	10:40	S04B007 15		X	X		
"	" "	11-2-91	10:45	S04B007 2D		X	X		
"	" "	11-2-91	10:55	S04B007 25		X	X		
"	" "	11-2-91	11:20	S04B007 3D		X	X		

Relinquished By: (Signature) Company: Brian Mark MKE	Date / Time 11-2-91 12:00	Received By: (Signature) Company:	Relinquished By: (Signature) Company:
Relinquished By: (Signature) Company:	Date / Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:
Relinquished By: (Signature) Company:	Date / Time	Received By: (Signature) Company:	Received for Laboratory By: (Signature) Company:
Relinquished By: (Signature) Company:	Date / Time	Received By: (Signature) Company:	

Date / Time	Received By: (Signature) Company:
Date / Time	Received By: (Signature) Company:
Date / Time	Total No. Samples this Shipping Container:
Date / Time	

A-3

#10155 86

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6971

Project No.: MK-3848

Project Name: UMATILLA DEPOT - WASH LAGOONS

Samplers: (Signature)

Sampler: (Print) BRIAN MARKEN / ALLEN BENSON

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Analysis Required: EXPLOSIVES	Analysis Required: NON-EXPLOSIVE CONTAMINANTS	Remarks
OIL	Boring 007	11-2-91	11:40	S04B00735		X	X		
"	" "	11-2-91	11:50	S04B00740		X	X		
"	" "	11-2-91	12:05	S04B00745		X	X		
"	" "	11-2-91	12:[illegible]	S04B0074[illegible] [illegible]		X	X		
OIL	Boring 008	11-2-91	15:15	S04B0080		X	X	X	
"	" "	11-2-91	15:30	S04B0082		X	X		
"	" "	11-2-91	15:40	S04B0084		X	X	X	
"	" "	11-2-91	15:45	S04B0086		X	X		
"	" "	11-2-91	15:55	S04B0088		X	X		
"	" "	11-2-91	16:00	S04B00810		X	X	X	

Relinquished By: (Signature) [illegible] Company:	Date/Time [illegible]	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Received for Laboratory By: (Signature) Company:	Date/Time	Total No. Samples this Shipping Container:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:		Date/Time	

3155-86

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6971

Project No.: MK-3848
Project Name: UMATILLA UL007-WASHOUT LAGOO
Samplers: (Signature)
Sampler: (Print) [illegible]

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples: Yes	Split Samples: No	Explosives	Semi-Volatiles	Pesticides/PCB	Metals	Alkalinity	Anions +	Volatiles	Remarks
WATE[R]	SPLIT SPOON RINSATE	11-2-91	14:50	RNSW3		X	X	X	X	X	X	X	X	
"	TRIP BLANK												X	

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Mike [illegible] Company:	11-4-91	Company:	Company:		Company:
Relinquished By: (Signature) Company:	Date / Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date / Time	Received By: (Signature) Company:
Relinquished By: (Signature) Company:	Date / Time	Received By: (Signature) Company:	Received for Laboratory By: (Signature) Company:	Date / Time	Total No. Samples this Shipping Container:
Relinquished By: (Signature) Company:	Date / Time	Received By: (Signature) Company:		Date / Time	

#10155-86

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6971

ATTN. RICK RAYMONDI

Project No.: MK-3848

Project Name: UMATILLA DEPOT - WASHOUT LAGOON

Samplers: (Signature)

Sampler: (Print) BRIAN MARKEL / ALLEN BONNER

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Explosives	Semi-Volatiles	Pesticides	PCB	Metals	Cyanide	Alkalinity	Nitrate	Volatiles	Remarks
WATER	SPLIT SPOON RINSATE	11-3-91	11:00	RNSW 6		X	X		X		X		X		X					
	TRIP BLANK					X									X					

Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company: BRIAN MARKEL	11-4-91 15:00	Company:
Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:
Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:
Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:

Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:
Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:
Received for Laboratory By: (Signature)	Date / Time	Total No. Samples this Shipping Container:
Company:		
	Date / Time	

#10155-88

A-6

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6071

ATTN. KICK RAYMONDI

Project No.:	Project Name:
MK-3848	UMATILLA DEPOT - MASHOT LAGOONS

Samplers: (Signature)

Sampler: (Print) BRIAN MARKER / ALLEN BENSON

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Analysis Required: EXPLOSIVES	Analysis Required: CO-CONTAMINANTS	Remarks
SOIL	BORING 008	11-2-91	16:15	S04B008I5		X	X		
"	" "	11-2-91	16:15	S04B008I5D		X	X		
"	" "	11-2-91	16:25	S04B008B20		X	X		
"	" "	11-2-91	16:35	S04B008B25		X	X		
"	" "	11-2-91	16:45	S04B008B30		X	X		
"	" "	11-2-91	17:00	S04B008B35		X	X		
"	" "	11-2-91	17:10	S04B008B40		X	X		
"	" "	11-3-91	07:45	S04B008B45		X	X		
"	" "	11-3-91	07:55	S04B008B50		X	X		
OIL	BORING 005	11-3-91	11:05	S04B005O		X	X	X	
"	" "	11-3-91	11:15	S04B005O2		X	X		

Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
MARKER / MK	11-4-91 1500				
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date / Time	Total No. Samples this Shipping Container:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:		Date / Time	

#10155-88

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-~~6971~~ 5771

ATTN. RICK RAYMONDI

Project No.: MK-3846

Project Name: UMATILLA DEPOT - WASHOUT LAGOONS

Samplers: (Signature)

Sampler: (Print) BRIAN MARKHAM / ALLEN BENFER

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Analysis Required: Explosives	Analysis Required: TO Compounds	Remarks
SOIL	BORING 005	11-3-91	11:30	S04B0054		X	X	X	
"	" "	11-3-91	11:40	S04B0056		X	X		
"	" "	11-3-91	11:48	S04B0058		X	X		
"	" "	11-3-91	11:55	S04B00510		X	X	X	
"	" "	11-3-91	12:05	S04B00515		X	X		
"	" "	11-3-91	12:15	S04B00520		X	X		
"	" "	11-3-91	12:25	S04B00525		X	X		
"	" "	11-3-91	12:35	S04B00530		X	X		
"	" "	11-3-91	12:35	S04B00530D		X	X		
"	" "	11-3-91	12:50	S04B00535		X	X		
[redacted]									
[redacted]									

Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:	11-4-91 15:30	Company:
Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:
Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:
Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:

Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:
Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Company:		Company:
Received for Laboratory By: (Signature)	Date / Time	Total No. Samples this Shipping Container:
Company:		

A-8

#10155-88

MK-ENVIRONMENTAL SERVICES
A DIVISION OF MK-FERGUSON

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6971 5000

ATTN. RICK RAYMONDI

Project No.:	Project Name:
MK-38148	UMATILLA DEPOT - WASHOUT LAGOON

Samplers: (Signature)

Sampler: (Print) CRAIG MARKEK / ALLEN BENFER

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Analysis Required: EXPLOSIVES	Analysis Required: CO-CONTAMINANTS	Remarks
SOIL	BOXING 005	11-3-91	13:00	S04B00540		X	X		
"	" "	11-3-91	13:10	S04B00545		X	X		
"	" "	11-3-91	13:20	S04B00550		X	X		
SOIL	BOXING 006	11-3-91	15:25	S04B0060		X	X	X	
"	" "	11-3-91	15:40	S04B0062		X	X		
"	" "	11-3-91	15:40	S04B0062-D		X	X		
"	" "	11-3-91	15:55	S04B0064		X	X	X	
"	" "	11-3-91	16:00	S04B0066		X	X		
"	" "	11-3-91	16:05	S04B0068		X	X		
"	" "	11-3-91	16:15	S04B0070		X	X	X	

Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Craig Markek	11-4-91 15:00				
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date / Time	Total No. Samples this Shipping Container:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:		Date / Time	

#10155-88

MORRISON-KNUDSEN ENGINEERS, INC.
A MORRISON KNUDSEN COMPANY

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 79
Boise, Idaho 83707
(208) 386-6971

ATTN: RICK RAYMOND

Project No.:	Project Name:
[illegible] 845	[illegible] - [illegible]

Samplers: (Signature)

Sampler: (Print) [illegible]

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	Analysis Required: EXPLOSIVES	Remarks
GW	BORING 006	11-3-91	16:30	S04B00615		X	X	
"	" "	11-3-91	16:40	S04B00620		X	X	
"	" "	11-3-91	16:50	S04B00625		X	X	
"	" "	11-3-91	16:55	S04B00630		X	X	
"	" "	11-3-91	17:05	S04B00635		X	X	
"	" "	11-4-91	07:35	S04B00640		X	X	
"	" "	11-4-91	07:45	S04B00645		X	X	
"	" "	11-4-91	08:00	S04B00650		X	X	

Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date / Time	Total No. Samples this Shipping Container:
Relinquished By: (Signature) / Company:	Date / Time	Received By: (Signature) / Company:		Date / Time	

810155

Appendix B
Borehole Logs

MORRISON KNUDSEN CORPORATION

MK-ENVIRONMENTAL SERVICES GROUP

BOREHOLE LOG

Sheet 1 of 2

PROJECT NUMBER: 3843

WELL NUMBER: S4B-5

PROJECT: EMO-UMATILLA ARMY DEPOT	LOCATION: NORTH EXPLOSIVE WASHOUT LAGOON
COORDINATES: N790205.87 E227300L33	DRILLING CONTRACTOR: LAYNE ENVIRONMENTAL SERVICES
DRILL MAKE AND MODEL: DRILL SYSTEMS AP-1000 DUAL WALL REVERSE CIRCULATION	BEDRX ELEV: N/A ft. / DEPTH CASING AND SIZES: 6 5/8 in O.D.
G.S. ELEV.: 534.65 ft. / TOC ELEV.: N/A ft. / BOREHOLE ANGLE: N/A	TOTAL DEPTH: 51.5 ft. / HOLE SIZE: 7 in.
WATER LEVEL/DATE: 47.1 ft.	FLUID AND ADDITIVES: WATER MIST / DATE START: 11-03-91 / DATE FINISH: 11-03-91 / LOGGER: A. BENFER

ELEVATION	DEPTH (feet)	SAMPLE: TYPE AND NUMBER, INTERVAL, RECOVERY	SAMPLE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	GRAPHIC LOG	SOIL DESCRIPTION: NAME, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USCS Group Symbol
		Bulk-1 0.0-2.0' 2.0'				0.0-2.0' SAND; Fine, clean, dark yellowish brown (10yr4/4), moist, medium dense, SP.
		SS-2 2.0-3.5' 18"		5-12-16 (28)		2.0-3.5' SAND; As above, silt pockets at 3.5'.
529	5	SS-3 4.0-5.5' 18"		10-14-18 (32)		4.0-5.5' SAND; As above, dense, minor interbedded medium to coarse sand.
		SS-4 6.0-7.5' 18"		12-13-14 (29)		6.0-7.0' SAND; Fine to medium, clean, as above, medium dense.
524	10	SS-5 8.0-9.5' 16"		18-23-27 (50)		7.0-7.5' GRAVEL; Fine 1/4" angular, 20% medium to coarse sand, 15% silt, yellowish brown (10yr5/4), moist, dense to very dense, GM.
		SS-6 10.0-11.5 15"		12-20-21 (41)		8.0-9.5' GRAVEL; As above.
519	15	SS-7 15.0-16.5' 15"		17-17-18 (35)		10.0-11.5' GRAVEL; As above, dense.
514	20	SS-8 20.0-21.5' 16"		17-17-16 (32)		15.0-16.5' GRAVEL; As above, dense, 1" silt seam at 16.5'.
509	25	SS-9 25.0-26.5' 16"		12-14-13 (27)		20.5-21.5' GRAVEL; As above, 10% silt, dense, GW-GP-GM.
	30					25.0-26.5' SAND; Well graded, fine to coarse, 15% fine 1/4" gravel, trace of silt, dark yellowish brown (10yr4/3), moist, medium dense, SW.

MORRISON KNUDSEN CORPORATION

MK-ENVIRONMENTAL SERVICES GROUP

BOREHOLE LOG

Sheet 2 of 2

PROJECT NUMBER: 3843

WELL NUMBER: S4B-5

PROJECT: EMO-UMATILLA ARMY DEPOT

LOCATION: NORTH EXPLOSIVE WASHOUT LAGOON

ELEVATION	DEPTH (feet)	SAMPLE: TYPE AND NUMBER, INTERVAL, RECOVERY	SAMPLE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	GRAPHIC LOG	SOIL DESCRIPTION: NAME, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USCS Group Symbol
		SS-10 30.0-31.5' 16"		12-14-15 (31)		30.0-31.5' SAND; As above, dense, SW.
	35					
499		SS-11 35.0-36.5' 16"		19-20-21 (42)		35.0-36.5' SAND; As above, dense, 20% silt from 36.0-36.5'.
	40					
494		SS-12 40.0-41.5' 14"		16-18-19 (37)		40.0-41.5 SAND; As above, clean, dense, finer grained 40.0-40.5'.
	45					
489		SS-13 45.0-46.5' 15"		20-25-31 (56)		45.0-46.5' SAND; As above, very dense. 4" silt layer 46.0-46.3', light gray (2.5yr7/2), moist, ML. ▼ Water level 47.1'
	50					
484		SS-14 50.0-51.5' 13"		9-14-16 (30)		50.0-51.5' SAND; Clean, well graded, as above, wet, medium dense to dense. T.D. 51.5'
	55					
479						
	60					
474						
	65					

MORRISON KNUDSEN CORPORATION

MK-ENVIRONMENTAL SERVICES GROUP

BOREHOLE LOG

Sheet 1 of 2

PROJECT NUMBER: 3843

WELL NUMBER: S4B-6

PROJECT: EMO-UMATILLA ARMY DEPOT	LOCATION: NORTH EXPLOSIVE WASHOUT LAGOON
COORDINATES: N790179.74 E2273064.41	DRILLING CONTRACTOR: LAYNE ENVIRONMENTAL SERVICES
DRILL MAKE AND MODEL: DRILL SYSTEMS AP-1000 DUAL WALL REVERSE CIRCULATION	BEDRX ELEV: N/A ft.
	DEPTH CASING AND SIZES: 6 5/8 in O.D.
G.S. ELEV.: 545.27 ft.	TOC ELEV.: N/A ft.
BOREHOLE ANGLE: N/A	TOTAL DEPTH: 51.5 ft.
	HOLE SIZE: 7 in.
WATER LEVEL/DATE: NOT MEASURED ft.	FLUID AND ADDITIVES: WATER MIST
DATE START: 11-03-91	DATE FINISH: 11-04-91
LOGGER: A. BENFER	

ELEVATION	DEPTH (feet)	SAMPLE: TYPE AND NUMBER, INTERVAL, RECOVERY	SAMPLE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	GRAPHIC LOG	SOIL DESCRIPTION: NAME, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USCS Group Symbol
		Bulk-1 0.0-2.0' 2.0'				0.0-2.0' SAND: Well graded, fine, 10% fine to crs subangular to rounded gravel 1/4-1/2", dk brn (7.5yr4/4), moist, medium dense, SW.
		SS-2 2.0-3.5' 18"		15-20-31 (51)		2.0-3.5' SAND: As above, 2" interbedded lense of clean fine sand, 1" very silty lense, very dense.
540	5	SS-3 4.0-5.5' 17"		6-10-12 (22)		4.0-5.5' SAND: Poorly graded, fine, clean, yellowish brown (10yr5/4), moist, medium dense, SP.
		SS-4 6.0-7.5' 17"		7-12-13 (25)		6.0-7.5' SILT: Low plasticity, light olive brown (2.5yr5/4), moist, very stiff (pp=2.5), ML.
535	10	SS-5 8.0-9.5' 17"		12-15-18 (33)		8.0-9.5' SAND: Poorly graded, fine, clean, dark yellowish brown (10yr4/2), moist, dense, SP. very silty 9.0-9.5', SM.
		SS-6 10.0-11.5 18"		10-13-15 (28)		10.0-11.5' SAND: As above, clean, medium dense.
530	15	SS-7 15.0-16.5' 16"		14-16-16 (32)		15.0-16.5' SAND: Coarse, 10% subangular gravel 1/4"-1/2", 5% silt, dark yellowish brown (10yr4/4), moist, dense, SW.
525	20	SS-8 20.0-21.5' 15"		16-23-17 (40)		20.5-21.5' SAND: As above, 1" silt lense at 20.0'.
520	25	SS-9 25.0-26.5' 17"		17-24-14 (38)		25.0-26.5' SAND: Coarse, clean, well graded subangular, 10% gravel 1/4"-1/2", dark yellowish brown (10yr4/4), moist, dense, SW.
	30					

MORRISON KNUDSEN CORPORATION

MK-ENVIRONMENTAL SERVICES GROUP

BOREHOLE LOG

Sheet 2 of 2

PROJECT NUMBER: 3843

WELL NUMBER: S48-6

PROJECT: EMO-UMATILLA ARMY DEPOT

LOCATION: NORTH EXPLOSIVE WASHOUT LAGOON

ELEVATION	DEPTH (feet)	SAMPLE: TYPE AND NUMBER, INTERVAL, RECOVERY	SAMPLE	STANDARD PENETRATION TEST RESULTS: 6"-6"-6" (N)	GRAPHIC LOG	SOIL DESCRIPTION: NAME, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USCS Group Symbol
		SS-10 30.0-31.5' 15"		14-24-25 (49)		30.0-31.5' SAND: As above, dense.
510	35	SS-11 35.0-36.5' 16"		20-25-15 (40)		35.0-36.5' SAND: As above, dense.
505	40	SS-12 40.0-41.5' 16"		13-18-21 (39)		40.0-41.5' SAND: As above, dense, gravel to 1 1/2", very silty at 40.0'.
500	45	SS-13 45.0-46.5' 15"		13-18-22 (40)		45.0-46.5' SAND: As above, dense.
495	50	SS-14 50.0-51.5'		13-19-26 (45)		50.0-51.5' SAND: As above, dense, wet. T.D. 51.5'
490	55					
485	60					
	85					

MORRISON KNUDSEN CORPORATION

MK-ENVIRONMENTAL SERVICES GROUP

BOREHOLE LOG

Sheet 1 of 2

PROJECT NUMBER: 3843

WELL NUMBER: S4B-7

PROJECT: EMO-UMATILLA ARMY DEPOT	LOCATION: SOUTH EXPLOSIVE WASHOUT LAGOON
COORDINATES: N790148.80 E2272980.65	DRILLING CONTRACTOR: LAYNE ENVIRONMENTAL SERVICES
DRILL MAKE AND MODEL: DRILL SYSTEMS AP-1000 DUAL WALL REVERSE CIRCULATION	BEDRX ELEV: N/A ft. / DEPTH CASING AND SIZES: 6 5/8 in O.D.
G.S. ELEV.: 544.16 ft. / TOC ELEV.: N/A ft. / BOREHOLE ANGLE: N/A	TOTAL DEPTH: 48.0 ft. / HOLE SIZE: 7 in.
WATER LEVEL/DATE: 47.0 ft.	FLUID AND ADDITIVES: WATER MIST / DATE START: 11-01-91 / DATE FINISH: 11-02-91 / LOGGER: A. BENFER

ELEVATION	DEPTH (feet)	SAMPLE: TYPE AND NUMBER, INTERVAL, RECOVERY	SAMPLE	STANDARD PENETRATION TEST RESULTS: 6"-6"-6" (N)	GRAPHIC LOG	SOIL DESCRIPTION: NAME, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USCS Group Symbol
		Bulk-1 0.0-2.0' 2.0"				0.0-2.0' SAND: Well graded, fine to coarse, 10-15% rounded gravel 1/4"-1/2", dark grayish brown (10yr4/2), moist, loose, minor silt clumps, SW.
		SS-2 2.0-3.5' 14"				2.0-3.0' SAND: Fine silty, 10% rounded gravel, dark grayish brown (10yr4/2), moist, medium stiff, SM.
539	5	SS-3 4.0-5.5' 13"				3.0-5.0' SAND: Well graded, fine to coarse, dark grayish brown (10yr4/2), moist, dense, SW.
		SS-4 6.0-7.5' 12"				5.0-6.0' SILT: Non plastic, fine sandy, dark grayish brown (10yr4/2), moist, medium dense, thinly laminated, ML.
534	10	SS-5 8.0-9.5' 15"				6.0-8.0' SAND: Poorly graded, fine to medium, dark grayish brown (10yr4/2), medium dense, SP, 7.5-8.0' silty.
		SS-6 10.0-11.5 17"				8.0-10.0' GRAVEL, SAND and SILT: Interbedded. Gravel fine to coarse, clean, rounded to angular, up to 1". Silty fine sand, fine sandy silt, clean fine sand, dk yellowish brown (10yr4/4), moist, dense to hard, GW, SM, ML, SP.
529	15	SS-7 15.0-16.5' 13"		18-18-16 (30)		10.0-11.5' GRAVEL: Angular to subrounded 1/8" to 1/4", 15% silt, 20% sand, dark yellowish brown (10yr4/4), moist, dense, GM.
						15.0-16.5' GRAVEL: Very silty, angular to rounded 1/8"-1/2", yellow brown (10yr5/6), moist, medium dense to dense, 30% silt and thin silt seams, GM.
524	20	SS-8 20.0-21.5' 17"		19-25-20 (45)		20.5-21.5' GRAVEL: As above, predominantly fine gravel <3/8", dense.

519	25	SS-9 25.0-26.5' 13"		20-16-12 (28)		25.0-26.5' GRAVEL: Fine 1/8"-1/4", 25% sand 10% silt, dark grayish brown (10yr4/2), moist, medium dense, GP.
	30					

MORRISON KNUDSEN CORPORATION

MK-ENVIRONMENTAL SERVICES GROUP

BOREHOLE LOG

Sheet 2 of 2

PROJECT NUMBER: 3843

WELL NUMBER: S4B-7

PROJECT: EMO-UMATILLA ARMY DEPOT

LOCATION: SOUTH EXPLOSIVE WASHOUT LAGOON

ELEVATION	DEPTH (feet)	SAMPLE: TYPE AND NUMBER, INTERVAL, RECOVERY	SAMPLE	STANDARD PENETRATION TEST RESULTS: 6"-6"-6" (N)	GRAPHIC LOG	SOIL DESCRIPTION: NAME, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USCS Group Symbol
		SS-10 30.0-31.5' 12"		15-17-21 (38)		30.0-31.5' GRAVEL; As above, minor silt lumps, 15% silt, dense, GM.
509	35	SS-11 35.0-36.5' 12"		15-18-17 (35)		35.0-36.5' SAND; Clean to silty, fine to coarse, interbedded, yellow brown (10yr5/6), moist, dense, SP, SW, SM.
504	40	SS-12 40.0-41.5' 12"		32-24-26 (50)		40.0-41.5 SAND; 15% gravel, up to 2", clean, angular to subrounded, dark yellowish brown (10yr4/4), dense to very dense, SW.
499	45	SS-13 45.0-46.5' 16"		22-24-27 (51)		45.0-46.5' SAND; Well graded, fine to coarse, 15% fine gravel, clean, dark yellow brown (10yr4/4), very dense, bottom 2" wet, SW. ▼ Water level at 47.0' T.D. 48.0'
494	50					
489	55					
484	60					
	65					

MORRISON KNUDSEN CORPORATION

MK-ENVIRONMENTAL SERVICES GROUP

BOREHOLE LOG

Sheet 1 of 2

PROJECT NUMBER: 3843

WELL NUMBER: S4B-8

PROJECT: EMO-UMATILLA ARMY DEPOT	LOCATION: SOUTH EXPLOSIVE WASHOUT LAGOON
COORDINATES: N790121.36 E2273041.49	DRILLING CONTRACTOR: LAYNE ENVIRONMENTAL SERVICES
DRILL MAKE AND MODEL: DRILL SYSTEMS AP-1000 DUAL WALL REVERSE CIRCULATION	BEDRX ELEV: N/A ft. / DEPTH CASING AND SIZES: 6 5/8 in O.D.
G.S. ELEV.: 545.25 ft. / TOC ELEV.: N/A ft. / BOREHOLE ANGLE: N/A	TOTAL DEPTH: 51.5 ft. / HOLE SIZE: 7 in.
WATER LEVEL/DATE: 48.0 ft.	FLUID AND ADDITIVES: WATER MIST / DATE START: 11-02-91 / DATE FINISH: 11-03-91 / LOGGER: A. BENFER

ELEVATION	DEPTH (feet)	SAMPLE: TYPE AND NUMBER, INTERVAL, RECOVERY	SAMPLE	STANDARD PENETRATION TEST RESULTS: 6"-6"-6" (N)	GRAPHIC LOG	SOIL DESCRIPTION: NAME, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USCS Group Symbol
		Bulk-1 0.0-2.0' 2.0'				0.0-2.0' SAND: Fine, clean, 10% 1/2"-1" rounded gravel, yellowish brown (10yr6/2), moist, loose, SP.
		SS-2 2.0-3.5' 18"		3-5-6 (11)		2.0-3.5' SAND: As above, trace gravel, medium dense.
540	5	SS-3 4.0-5.5' 13"		4-6-8 (14)		4.0-5.5' SAND: As above
		SS-4 6.0-7.5' 18"		15-18-21 (39)		6.0-7.5' SAND: As above, 20% silt at 6.5 to7.5, yellowish brown (10yr6/6), dense, SM.
				21-28-31 (59)		8.0-9.5' SAND: Fine, 5% silt, yellowish brown (10yr6/6), moist, very dense, SP.
535	10	SS-5 8.0-9.5' 18"		29-31-34 (65)		10.0-11.5' SAND: 40% gravel 1/4" to 1", clean, dark yellowish brown 10yr4/4), moist, very dense, SW.
		SS-6 10.0-11.5 15"				
530	15	SS-7 15.0-16.5' 18"		24-34-36 (70)		15.0-16.5' GRAVEL: Angular, 25% sand, 5% silt, brown (10yr5/3), moist, very dense, GP.
525	20	SS-8 20.0-21.5' 18"		27-20-32 (52)		20.5-21.5' GRAVEL: As above.
520	25	SS-9 25.0-26.5' 18"		23-27-28 (55)		25.0-26.5' GRAVEL: As above, GP, 25% silt 25.5-26.0', GM.
	30					

MORRISON KNUDSEN CORPORATION

MK-ENVIRONMENTAL SERVICES GROUP

BOREHOLE LOG

Sheet 2 of 2

PROJECT NUMBER: 3843

WELL NUMBER: S4B-8

PROJECT: EMO-UMATILLA ARMY DEPOT

LOCATION: SOUTH EXPLOSIVE WASHOUT LAGOON

ELEVATION	DEPTH (feet)	SAMPLE: TYPE AND NUMBER, INTERVAL, RECOVERY	SAMPLE	STANDARD PENETRATION TEST RESULTS: 6"-6"-6" (N)	GRAPHIC LOG	SOIL DESCRIPTION: NAME, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USCS Group Symbol
		SS-10 30.0-31.5' 17"		31-36-38 (74)		30.0-31.5' SAND; Well graded, 20% gravel, sand and gravel angular to subrounded, gravel 1/4"-1/2", brown (10yr4/4), moist, very dense, SW.
510	35	SS-11 35.0-36.5' 18"		27-30-24 (51)		35.0-36.5' SAND; Well graded, Coarse angular, trace gravel, brown (10yr4/4), moist, very dense, SW.
505	40	SS-12 40.0-41.5' 16"		27-34-38 (72)		40.0-41.5' SAND; As above, 10% gravel, very dense.
500	45	SS-13 45.0-46.5' 18"		23-33-47 (80)		45.0-46.5' SAND; As above, trace gravel, very dense.
						▼ Water level 48.0'
495	50	SS-14 50.0-51.5' 16"		10-15-21 (36)		50.0-51.5' SAND; As above, wet, dense.
						T.D. 51.5'
490	55					
485	60					
	65					

Appendix C
Laboratory Results of Soil Samples

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	03-nov-1991	00	ALK		4.80e+01	UGG
10.0	03-nov-1991	00	ALK		5.20e+01	UGG
0.0	03-nov-1991	00	ALK	LT	2.50e+01	UGG
0.0	03-nov-1991	00	PH		7.64e+00	
10.0	03-nov-1991	00	PH		8.11e+00	
4.0	03-nov-1991	00	PH		8.19e+00	
10.0	03-nov-1991	00	TOC		8.08e+02	UGG
0.0	03-nov-1991	00	TOC		8.92e+02	UGG
4.0	03-nov-1991	00	TOC		3.33e+03	UGG
0.0	03-nov-1991	JB01	HG	LT	5.00e-02	UGG
4.0	03-nov-1991	JB01	HG	LT	5.00e-02	UGG
10.0	03-nov-1991	JB01	HG	LT	5.00e-02	UGG
0.0	03-nov-1991	JD15	SE	LT	2.50e-01	UGG
4.0	03-nov-1991	JD15	SE	LT	2.50e-01	UGG
10.0	03-nov-1991	JD15	SE	LT	2.50e-01	UGG
4.0	03-nov-1991	JD17	PB		4.30e+00	UGG
0.0	03-nov-1991	JD17	PB		6.77e+00	UGG
10.0	03-nov-1991	JD17	PB		8.22e+00	UGG
10.0	03-nov-1991	JD19	AS		1.12e+00	UGG
0.0	03-nov-1991	JD19	AS		1.26e+00	UGG
4.0	03-nov-1991	JD19	AS		1.72e+00	UGG
0.0	03-nov-1991	JS16	AG		7.22e-01	UGG
10.0	03-nov-1991	JS16	AG		9.02e-01	UGG
4.0	03-nov-1991	JS16	AG		1.04e+00	UGG
0.0	03-nov-1991	JS16	AL		5.45e+03	UGG
4.0	03-nov-1991	JS16	AL		5.67e+03	UGG
10.0	03-nov-1991	JS16	AL		6.05e+03	UGG
0.0	03-nov-1991	JS16	BA		7.86e+01	UGG
4.0	03-nov-1991	JS16	BA		9.44e+01	UGG
10.0	03-nov-1991	JS16	BA		9.63e+01	UGG
0.0	03-nov-1991	JS16	BE		1.64e+00	UGG
4.0	03-nov-1991	JS16	BE		1.75e+00	UGG
10.0	03-nov-1991	JS16	BE		1.75e+00	UGG
0.0	03-nov-1991	JS16	CA		3.83e+03	UGG
4.0	03-nov-1991	JS16	CA		9.20e+03	UGG
10.0	03-nov-1991	JS16	CA		9.77e+03	UGG
0.0	03-nov-1991	JS16	CD	LT	7.00e-01	UGG
4.0	03-nov-1991	JS16	CD	LT	7.00e-01	UGG
10.0	03-nov-1991	JS16	CD	LT	7.00e-01	UGG
10.0	03-nov-1991	JS16	CO		1.18e+01	UGG
0.0	03-nov-1991	JS16	CO		1.24e+01	UGG
4.0	03-nov-1991	JS16	CO		1.33e+01	UGG
10.0	03-nov-1991	JS16	CR		6.21e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	JS16	CR		7.76e+00	UGG
4.0	03-nov-1991	JS16	CR		8.48e+00	UGG
0.0	03-nov-1991	JS16	CU		1.13e+01	UGG
4.0	03-nov-1991	JS16	CU		1.39e+01	UGG
10.0	03-nov-1991	JS16	CU		1.74e+01	UGG
10.0	03-nov-1991	JS16	FE		2.13e+04	UGG
0.0	03-nov-1991	JS16	FE		2.23e+04	UGG
4.0	03-nov-1991	JS16	FE		2.41e+04	UGG
10.0	03-nov-1991	JS16	K		8.70e+02	UGG
4.0	03-nov-1991	JS16	K		9.05e+02	UGG
0.0	03-nov-1991	JS16	K		9.97e+02	UGG
10.0	03-nov-1991	JS16	MG		4.27e+03	UGG
0.0	03-nov-1991	JS16	MG		4.44e+03	UGG
4.0	03-nov-1991	JS16	MG		5.27e+03	UGG
0.0	03-nov-1991	JS16	MN		3.08e+02	UGG
10.0	03-nov-1991	JS16	MN		3.10e+02	UGG
4.0	03-nov-1991	JS16	MN		3.81e+02	UGG
0.0	03-nov-1991	JS16	NA		2.82e+02	UGG
4.0	03-nov-1991	JS16	NA		3.04e+02	UGG
10.0	03-nov-1991	JS16	NA		3.60e+02	UGG
10.0	03-nov-1991	JS16	NI		5.98e+00	UGG
4.0	03-nov-1991	JS16	NI		8.09e+00	UGG
0.0	03-nov-1991	JS16	NI		9.48e+00	UGG
0.0	03-nov-1991	JS16	SB	LT	7.14e+00	UGG
4.0	03-nov-1991	JS16	SB	LT	7.14e+00	UGG
10.0	03-nov-1991	JS16	SB	LT	7.14e+00	UGG
10.0	03-nov-1991	JS16	TL		1.60e+01	UGG
0.0	03-nov-1991	JS16	TL		1.78e+01	UGG
4.0	03-nov-1991	JS16	TL		3.10e+01	UGG
0.0	03-nov-1991	JS16	V		7.08e+01	UGG
10.0	03-nov-1991	JS16	V		7.44e+01	UGG
4.0	03-nov-1991	JS16	V		7.80e+01	UGG
10.0	03-nov-1991	JS16	ZN		4.21e+01	UGG
0.0	03-nov-1991	JS16	ZN		4.71e+01	UGG
4.0	03-nov-1991	JS16	ZN		5.28e+01	UGG
4.0	03-nov-1991	KF10	NIT		1.82e+00	UGG
45.0	03-nov-1991	KF10	NIT		3.25e+00	UGG
50.0	03-nov-1991	KF10	NIT		3.54e+00	UGG
2.0	03-nov-1991	KF10	NIT		5.20e+00	UGG
8.0	03-nov-1991	KF10	NIT		6.82e+00	UGG
0.0	03-nov-1991	KF10	NIT		1.10e+01	UGG
6.0	03-nov-1991	KF10	NIT		1.10e+01	UGG
35.0	03-nov-1991	KF10	NIT		2.70e+01	UGG
40.0	03-nov-1991	KF10	NIT		2.70e+01	UGG
20.0	03-nov-1991	KF10	NIT		3.40e+01	UGG
10.0	03-nov-1991	KF10	NIT		3.70e+01	UGG
25.0	03-nov-1991	KF10	NIT		5.60e+01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
30.0	03-nov-1991	KF10	NIT		6.00e+01	UGG
30.0	03-nov-1991	KF10	NIT		6.30e+01	UGG
15.0	03-nov-1991	KF10	NIT		9.00e+01	UGG
0.0	03-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
4.0	03-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
10.0	03-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
0.0	03-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
4.0	03-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
10.0	03-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
0.0	03-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
4.0	03-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
10.0	03-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
0.0	03-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
4.0	03-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
10.0	03-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
0.0	03-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
4.0	03-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
10.0	03-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
0.0	03-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
4.0	03-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
10.0	03-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
0.0	03-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
4.0	03-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
10.0	03-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
0.0	03-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
4.0	03-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
10.0	03-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
0.0	03-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
4.0	03-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
10.0	03-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
0.0	03-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
4.0	03-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
10.0	03-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
0.0	03-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
4.0	03-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
10.0	03-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
0.0	03-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
4.0	03-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
10.0	03-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
0.0	03-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
4.0	03-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
10.0	03-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
0.0	03-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
4.0	03-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
10.0	03-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
0.0	03-nov-1991	LH10	LIN	LT	6.38e-03	UGG
4.0	03-nov-1991	LH10	LIN	LT	6.38e-03	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	03-nov-1991	LH10	LIN	LT	6.38e-03	UGG
0.0	03-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
4.0	03-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
10.0	03-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
0.0	03-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
4.0	03-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
10.0	03-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
0.0	03-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
4.0	03-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
10.0	03-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
0.0	03-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
4.0	03-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
10.0	03-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
0.0	03-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
4.0	03-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
10.0	03-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
0.0	03-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
4.0	03-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
10.0	03-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
0.0	03-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
4.0	03-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
10.0	03-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
0.0	03-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
4.0	03-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
10.0	03-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
0.0	03-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
4.0	03-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
10.0	03-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
0.0	03-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
4.0	03-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
10.0	03-nov-1991	LM18	12DPH	ND	1.40e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	03-nov-1991	LM18	12EPCH		2.15e-01	UGG
0.0	03-nov-1991	LM18	12EPCH		3.15e-01	UGG
4.0	03-nov-1991	LM18	12EPCH		3.15e-01	UGG
0.0	03-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
4.0	03-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
10.0	03-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
0.0	03-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
4.0	03-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
10.0	03-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
0.0	03-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
4.0	03-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
10.0	03-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
0.0	03-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
4.0	03-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
10.0	03-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
0.0	03-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
4.0	03-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
10.0	03-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
0.0	03-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
4.0	03-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
10.0	03-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
0.0	03-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
4.0	03-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
10.0	03-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
10.0	03-nov-1991	LM18	24DNT		1.84e+00	UGG
0.0	03-nov-1991	LM18	24DNT	LT	1.40e-01	UGG
4.0	03-nov-1991	LM18	24DNT	LT	1.40e-01	UGG
0.0	03-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
4.0	03-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
10.0	03-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
0.0	03-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
4.0	03-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
10.0	03-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
0.0	03-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
4.0	03-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
10.0	03-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
0.0	03-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
4.0	03-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
10.0	03-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
0.0	03-nov-1991	LM18	2MP	LT	2.90e-02	UGG
4.0	03-nov-1991	LM18	2MP	LT	2.90e-02	UGG
10.0	03-nov-1991	LM18	2MP	LT	2.90e-02	UGG
0.0	03-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
4.0	03-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
10.0	03-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
0.0	03-nov-1991	LM18	2NP	LT	1.40e-01	UGG
4.0	03-nov-1991	LM18	2NP	LT	1.40e-01	UGG
10.0	03-nov-1991	LM18	2NP	LT	1.40e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
4.0	03-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
10.0	03-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
0.0	03-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
4.0	03-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
10.0	03-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
0.0	03-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
4.0	03-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
10.0	03-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
0.0	03-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
4.0	03-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
10.0	03-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
0.0	03-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
4.0	03-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
10.0	03-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
0.0	03-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	4MP	LT	2.40e-01	UGG
4.0	03-nov-1991	LM18	4MP	LT	2.40e-01	UGG
10.0	03-nov-1991	LM18	4MP	LT	2.40e-01	UGG
0.0	03-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
4.0	03-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
10.0	03-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
0.0	03-nov-1991	LM18	4NP	LT	1.40e+00	UGG
4.0	03-nov-1991	LM18	4NP	LT	1.40e+00	UGG
10.0	03-nov-1991	LM18	4NP	LT	1.40e+00	UGG
0.0	03-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
0.0	03-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
4.0	03-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
10.0	03-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
0.0	03-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
0.0	03-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
4.0	03-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
10.0	03-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
0.0	03-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
4.0	03-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
10.0	03-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
0.0	03-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
4.0	03-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
10.0	03-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
0.0	03-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
4.0	03-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
10.0	03-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
0.0	03-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
4.0	03-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
10.0	03-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
0.0	03-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
4.0	03-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
10.0	03-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
0.0	03-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
4.0	03-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
10.0	03-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
0.0	03-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
4.0	03-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
10.0	03-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
0.0	03-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
4.0	03-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
10.0	03-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
0.0	03-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
4.0	03-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
10.0	03-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
0.0	03-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
4.0	03-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
10.0	03-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
0.0	03-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
4.0	03-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
10.0	03-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
0.0	03-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
4.0	03-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
10.0	03-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
0.0	03-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
4.0	03-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
10.0	03-nov-1991	LM18	BZALC	LT	1.90e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
4.0	03-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
10.0	03-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
0.0	03-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
4.0	03-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
10.0	03-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
0.0	03-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
4.0	03-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
10.0	03-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
0.0	03-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
4.0	03-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
10.0	03-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
0.0	03-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
4.0	03-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
10.0	03-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
0.0	03-nov-1991	LM18	DEP	LT	2.40e-01	UGG
4.0	03-nov-1991	LM18	DEP	LT	2.40e-01	UGG
10.0	03-nov-1991	LM18	DEP	LT	2.40e-01	UGG
0.0	03-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
4.0	03-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
10.0	03-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
0.0	03-nov-1991	LM18	DMP	LT	1.70e-01	UGG
4.0	03-nov-1991	LM18	DMP	LT	1.70e-01	UGG
10.0	03-nov-1991	LM18	DMP	LT	1.70e-01	UGG
0.0	03-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
4.0	03-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
10.0	03-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
0.0	03-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
4.0	03-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
10.0	03-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
0.0	03-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
4.0	03-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
10.0	03-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
0.0	03-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
4.0	03-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
10.0	03-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
0.0	03-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
4.0	03-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
10.0	03-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
0.0	03-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
4.0	03-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
10.0	03-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM18	FANT	LT	6.80e-02	UGG
4.0	03-nov-1991	LM18	FANT	LT	6.80e-02	UGG
10.0	03-nov-1991	LM18	FANT	LT	6.80e-02	UGG
0.0	03-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
0.0	03-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
4.0	03-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
10.0	03-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
0.0	03-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
4.0	03-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
10.0	03-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
0.0	03-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
0.0	03-nov-1991	LM18	HXMETA		2.10e+00	UGG
0.0	03-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
4.0	03-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
10.0	03-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
0.0	03-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	LIN	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	LIN	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	LIN	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
0.0	03-nov-1991	LM18	NAP	LT	3.70e-02	UGG
4.0	03-nov-1991	LM18	NAP	LT	3.70e-02	UGG
10.0	03-nov-1991	LM18	NAP	LT	3.70e-02	UGG
0.0	03-nov-1991	LM18	NB	LT	4.50e-02	UGG
4.0	03-nov-1991	LM18	NB	LT	4.50e-02	UGG
10.0	03-nov-1991	LM18	NB	LT	4.50e-02	UGG
0.0	03-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
4.0	03-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
10.0	03-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
0.0	03-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
4.0	03-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
10.0	03-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
0.0	03-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
4.0	03-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
10.0	03-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
0.0	03-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
4.0	03-nov-1991	LM18	PCB016	ND	1.40e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	03-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
0.0	03-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
4.0	03-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
10.0	03-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
0.0	03-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
4.0	03-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
10.0	03-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
0.0	03-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
4.0	03-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
10.0	03-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
0.0	03-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
4.0	03-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
10.0	03-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
0.0	03-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
4.0	03-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
10.0	03-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
0.0	03-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
4.0	03-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
10.0	03-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
0.0	03-nov-1991	LM18	PCP	LT	1.30e+00	UGG
4.0	03-nov-1991	LM18	PCP	LT	1.30e+00	UGG
10.0	03-nov-1991	LM18	PCP	LT	1.30e+00	UGG
0.0	03-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
4.0	03-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
10.0	03-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
0.0	03-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
4.0	03-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
10.0	03-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
0.0	03-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
4.0	03-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
10.0	03-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
0.0	03-nov-1991	LM18	PYR	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	PYR	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	PYR	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
4.0	03-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
10.0	03-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
0.0	03-nov-1991	LM18	UNK517		8.39e-01	UGG
0.0	03-nov-1991	LM18	UNK555		4.20e-01	UGG
4.0	03-nov-1991	LM18	UNK594 *		2.10e+00	UGG
0.0	03-nov-1991	LM18	UNK595 -		1.05e+00	UGG
10.0	03-nov-1991	LM18	UNK595 *		4.31e+00	UGG

*Trinitrobenzene
-Trinitrotoluene

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
4.0	03-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
10.0	03-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
0.0	03-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
4.0	03-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
10.0	03-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
0.0	03-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
4.0	03-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
10.0	03-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
0.0	03-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
4.0	03-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
10.0	03-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
0.0	03-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
4.0	03-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
10.0	03-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
0.0	03-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
4.0	03-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
10.0	03-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
0.0	03-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
4.0	03-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
10.0	03-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
0.0	03-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
4.0	03-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
10.0	03-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
0.0	03-nov-1991	LM19	ACET	LT	1.70e-02	UGG
4.0	03-nov-1991	LM19	ACET	LT	1.70e-02	UGG
10.0	03-nov-1991	LM19	ACET	LT	1.70e-02	UGG
0.0	03-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
4.0	03-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
10.0	03-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
0.0	03-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
4.0	03-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
10.0	03-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
0.0	03-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
4.0	03-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
10.0	03-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
0.0	03-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
4.0	03-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
10.0	03-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
0.0	03-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
4.0	03-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
10.0	03-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
0.0	03-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
4.0	03-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
10.0	03-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
0.0	03-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
4.0	03-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
10.0	03-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
4.0	03-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
10.0	03-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
0.0	03-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
4.0	03-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
10.0	03-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
0.0	03-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
4.0	03-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
10.0	03-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
0.0	03-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
4.0	03-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
10.0	03-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
0.0	03-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
4.0	03-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
10.0	03-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
0.0	03-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
4.0	03-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
10.0	03-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
0.0	03-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
4.0	03-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
10.0	03-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
0.0	03-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
4.0	03-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
10.0	03-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
0.0	03-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
4.0	03-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
10.0	03-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
0.0	03-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
4.0	03-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
10.0	03-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
0.0	03-nov-1991	LM19	CS2	LT	4.40e-03	UGG
4.0	03-nov-1991	LM19	CS2	LT	4.40e-03	UGG
10.0	03-nov-1991	LM19	CS2	LT	4.40e-03	UGG
0.0	03-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
4.0	03-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
10.0	03-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
0.0	03-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
4.0	03-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
10.0	03-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
0.0	03-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
4.0	03-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
10.0	03-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
0.0	03-nov-1991	LM19	MEK	LT	7.00e-02	UGG
4.0	03-nov-1991	LM19	MEK	LT	7.00e-02	UGG
10.0	03-nov-1991	LM19	MEK	LT	7.00e-02	UGG
0.0	03-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
4.0	03-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
10.0	03-nov-1991	LM19	MIBK	LT	2.70e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
4.0	03-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
10.0	03-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
0.0	03-nov-1991	LM19	STYR	LT	2.60e-03	UGG
4.0	03-nov-1991	LM19	STYR	LT	2.60e-03	UGG
10.0	03-nov-1991	LM19	STYR	LT	2.60e-03	UGG
0.0	03-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
4.0	03-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
10.0	03-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
0.0	03-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
4.0	03-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
10.0	03-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
0.0	03-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
4.0	03-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
10.0	03-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
0.0	03-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
4.0	03-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
10.0	03-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
0.0	03-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
4.0	03-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
10.0	03-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
0.0	03-nov-1991	LW12	135TNB		2.51e+00	UGG
50.0	03-nov-1991	LW12	135TNB		8.00e+00	UGG
2.0	03-nov-1991	LW12	135TNB		8.59e+00	UGG
4.0	03-nov-1991	LW12	135TNB		9.88e+00	UGG
6.0	03-nov-1991	LW12	135TNB		1.29e+01	UGG
45.0	03-nov-1991	LW12	135TNB		1.48e+01	UGG
30.0	03-nov-1991	LW12	135TNB		2.40e+01	UGG
30.0	03-nov-1991	LW12	135TNB		2.61e+01	UGG
8.0	03-nov-1991	LW12	135TNB		2.90e+01	UGG
40.0	03-nov-1991	LW12	135TNB		3.00e+01	UGG
35.0	03-nov-1991	LW12	135TNB		3.30e+01	UGG
10.0	03-nov-1991	LW12	135TNB		3.40e+01	UGG
25.0	03-nov-1991	LW12	135TNB		3.40e+01	UGG
20.0	03-nov-1991	LW12	135TNB		3.60e+01	UGG
15.0	03-nov-1991	LW12	135TNB		4.00e+01	UGG
35.0	03-nov-1991	LW12	13DNB		6.28e-01	UGG
20.0	03-nov-1991	LW12	13DNB		7.47e-01	UGG
0.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
2.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
4.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
6.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
8.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
10.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
15.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
25.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
30.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
30.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
40.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
45.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
50.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
2.0	03-nov-1991	LW12	246TNT		1.47e+00	UGG
8.0	03-nov-1991	LW12	246TNT		3.02e+00	UGG
0.0	03-nov-1991	LW12	246TNT		3.62e+00	UGG
30.0	03-nov-1991	LW12	246TNT		5.63e+00	UGG
30.0	03-nov-1991	LW12	246TNT		7.05e+00	UGG
10.0	03-nov-1991	LW12	246TNT		8.84e+00	UGG
20.0	03-nov-1991	LW12	246TNT		9.88e+00	UGG
50.0	03-nov-1991	LW12	246TNT		1.01e+01	UGG
35.0	03-nov-1991	LW12	246TNT		1.15e+01	UGG
15.0	03-nov-1991	LW12	246TNT		1.20e+01	UGG
25.0	03-nov-1991	LW12	246TNT		1.29e+01	UGG
40.0	03-nov-1991	LW12	246TNT		1.50e+01	UGG
45.0	03-nov-1991	LW12	246TNT		2.40e+01	UGG
4.0	03-nov-1991	LW12	246TNT	LT	4.56e-01	UGG
6.0	03-nov-1991	LW12	246TNT	LT	4.56e-01	UGG
8.0	03-nov-1991	LW12	24DNT		9.16e-01	UGG
30.0	03-nov-1991	LW12	24DNT		2.40e+00	UGG
15.0	03-nov-1991	LW12	24DNT		4.14e+00	UGG
10.0	03-nov-1991	LW12	24DNT		4.45e+00	UGG
0.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
2.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
4.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
6.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
20.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
25.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
30.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
35.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
40.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
45.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
50.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
50.0	03-nov-1991	LW12	26DNT		8.72e-01	UGG
45.0	03-nov-1991	LW12	26DNT		2.45e+00	UGG
40.0	03-nov-1991	LW12	26DNT		3.81e+00	UGG
35.0	03-nov-1991	LW12	26DNT		5.56e+00	UGG
0.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
2.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
4.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
6.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
8.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
10.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
15.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
20.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
25.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
30.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
30.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
2.0	03-nov-1991	LW12	HMX		1.61e+00	UGG
8.0	03-nov-1991	LW12	HMX		2.29e+00	UGG
30.0	03-nov-1991	LW12	HMX		1.36e+01	UGG
30.0	03-nov-1991	LW12	HMX		1.39e+01	UGG
20.0	03-nov-1991	LW12	HMX		1.94e+01	UGG
25.0	03-nov-1991	LW12	HMX		2.54e+01	UGG
15.0	03-nov-1991	LW12	HMX		3.03e+01	UGG
0.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
4.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
6.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
10.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
35.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
40.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
45.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
50.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
8.0	03-nov-1991	LW12	NB		4.30e+00	UGG
0.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
2.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
4.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
6.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
10.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
15.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
20.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
25.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
30.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
30.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
35.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
40.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
45.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
50.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
50.0	03-nov-1991	LW12	RDX		2.73e+00	UGG
45.0	03-nov-1991	LW12	RDX		3.52e+00	UGG
4.0	03-nov-1991	LW12	RDX		6.01e+00	UGG
6.0	03-nov-1991	LW12	RDX		1.13e+01	UGG
8.0	03-nov-1991	LW12	RDX		1.67e+01	UGG
30.0	03-nov-1991	LW12	RDX		1.83e+01	UGG
10.0	03-nov-1991	LW12	RDX		1.92e+01	UGG
30.0	03-nov-1991	LW12	RDX		2.03e+01	UGG
20.0	03-nov-1991	LW12	RDX		2.13e+01	UGG
15.0	03-nov-1991	LW12	RDX		2.20e+01	UGG
35.0	03-nov-1991	LW12	RDX		3.10e+01	UGG
25.0	03-nov-1991	LW12	RDX		3.30e+01	UGG
40.0	03-nov-1991	LW12	RDX		3.30e+01	UGG
2.0	03-nov-1991	LW12	RDX		1.10e+02	UGG
0.0	03-nov-1991	LW12	RDX		2.00e+02	UGG
0.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
2.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
6.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
8.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
10.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
15.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
20.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
25.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
30.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
30.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
35.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
40.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
45.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
50.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG

Site: BORE S04B006

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	03-nov-1991	00	ALK		4.60e+01	UGG
10.0	03-nov-1991	00	ALK		5.00e+01	UGG
0.0	03-nov-1991	00	ALK		1.02e+02	UGG
10.0	03-nov-1991	00	PH		8.11e+00	
4.0	03-nov-1991	00	PH		8.19e+00	
0.0	03-nov-1991	00	PH		8.27e+00	
10.0	03-nov-1991	00	TOC		1.42e+03	UGG
4.0	03-nov-1991	00	TOC		3.60e+03	UGG
0.0	03-nov-1991	00	TOC		7.34e+03	UGG
0.0	03-nov-1991	JB01	HG	LT	5.00e-02	UGG
4.0	03-nov-1991	JB01	HG	LT	5.00e-02	UGG
10.0	03-nov-1991	JB01	HG	LT	5.00e-02	UGG
0.0	03-nov-1991	JD15	SE	LT	2.50e-01	UGG
4.0	03-nov-1991	JD15	SE	LT	2.50e-01	UGG
10.0	03-nov-1991	JD15	SE	LT	2.50e-01	UGG
0.0	03-nov-1991	JD17	PB		3.88e+00	UGG
4.0	03-nov-1991	JD17	PB		6.43e+00	UGG
10.0	03-nov-1991	JD17	PB		9.40e+00	UGG
0.0	03-nov-1991	JD19	AS		8.98e-01	UGG
4.0	03-nov-1991	JD19	AS		2.56e+00	UGG
10.0	03-nov-1991	JD19	AS		4.19e+00	UGG
4.0	03-nov-1991	JS16	AG		8.13e-01	UGG
10.0	03-nov-1991	JS16	AG		8.33e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	JS16	AG		8.76e-01	UGG
0.0	03-nov-1991	JS16	AL		4.37e+03	UGG
4.0	03-nov-1991	JS16	AL		7.05e+03	UGG
10.0	03-nov-1991	JS16	AL		9.66e+03	UGG
0.0	03-nov-1991	JS16	BA		7.53e+01	UGG
4.0	03-nov-1991	JS16	BA		9.77e+01	UGG
10.0	03-nov-1991	JS16	BA		1.32e+02	UGG
0.0	03-nov-1991	JS16	BE		1.54e+00	UGG
4.0	03-nov-1991	JS16	BE		2.12e+00	UGG
10.0	03-nov-1991	JS16	BE		2.13e+00	UGG
4.0	03-nov-1991	JS16	CA		1.11e+04	UGG
0.0	03-nov-1991	JS16	CA		1.15e+04	UGG
10.0	03-nov-1991	JS16	CA		1.42e+04	UGG
0.0	03-nov-1991	JS16	CD	LT	7.00e-01	UGG
4.0	03-nov-1991	JS16	CD	LT	7.00e-01	UGG
10.0	03-nov-1991	JS16	CD	LT	7.00e-01	UGG
0.0	03-nov-1991	JS16	CO		1.13e+01	UGG
4.0	03-nov-1991	JS16	CO		1.31e+01	UGG
10.0	03-nov-1991	JS16	CO		1.47e+01	UGG
0.0	03-nov-1991	JS16	CR		5.32e+00	UGG
4.0	03-nov-1991	JS16	CR		1.02e+01	UGG
10.0	03-nov-1991	JS16	CR		1.29e+01	UGG
4.0	03-nov-1991	JS16	CU		1.27e+01	UGG
0.0	03-nov-1991	JS16	CU		1.55e+01	UGG
10.0	03-nov-1991	JS16	CU		1.83e+01	UGG
0.0	03-nov-1991	JS16	FE		2.15e+04	UGG
4.0	03-nov-1991	JS16	FE		2.46e+04	UGG
10.0	03-nov-1991	JS16	FE		2.72e+04	UGG
0.0	03-nov-1991	JS16	K		6.95e+02	UGG
4.0	03-nov-1991	JS16	K		1.28e+03	UGG
10.0	03-nov-1991	JS16	K		1.75e+03	UGG
0.0	03-nov-1991	JS16	MG		3.84e+03	UGG
4.0	03-nov-1991	JS16	MG		6.74e+03	UGG
10.0	03-nov-1991	JS16	MG		8.12e+03	UGG
0.0	03-nov-1991	JS16	MN		2.99e+02	UGG
4.0	03-nov-1991	JS16	MN		4.07e+02	UGG
10.0	03-nov-1991	JS16	MN		5.19e+02	UGG
0.0	03-nov-1991	JS16	NA		2.90e+02	UGG
4.0	03-nov-1991	JS16	NA		3.32e+02	UGG
10.0	03-nov-1991	JS16	NA		4.27e+02	UGG
0.0	03-nov-1991	JS16	NI		5.74e+00	UGG
4.0	03-nov-1991	JS16	NI		9.94e+00	UGG
10.0	03-nov-1991	JS16	NI		1.28e+01	UGG
0.0	03-nov-1991	JS16	SB	LT	7.14e+00	UGG
4.0	03-nov-1991	JS16	SB	LT	7.14e+00	UGG
10.0	03-nov-1991	JS16	SB	LT	7.14e+00	UGG
10.0	03-nov-1991	JS16	TL		1.93e+01	UGG
0.0	03-nov-1991	JS16	TL		2.20e+01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	03-nov-1991	JS16	TL		2.31e+01	UGG
4.0	03-nov-1991	JS16	V		7.03e+01	UGG
0.0	03-nov-1991	JS16	V		7.14e+01	UGG
10.0	03-nov-1991	JS16	V		7.17e+01	UGG
0.0	03-nov-1991	JS16	ZN		4.81e+01	UGG
4.0	03-nov-1991	JS16	ZN		5.34e+01	UGG
10.0	03-nov-1991	JS16	ZN		6.71e+01	UGG
50.0	04-nov-1991	KF10	NIT		1.80e+00	UGG
15.0	03-nov-1991	KF10	NIT		1.88e+00	UGG
30.0	03-nov-1991	KF10	NIT		2.83e+00	UGG
20.0	03-nov-1991	KF10	NIT		3.24e+00	UGG
10.0	03-nov-1991	KF10	NIT		3.41e+00	UGG
45.0	04-nov-1991	KF10	NIT		3.55e+00	UGG
25.0	03-nov-1991	KF10	NIT		3.92e+00	UGG
35.0	03-nov-1991	KF10	NIT		4.70e+00	UGG
40.0	04-nov-1991	KF10	NIT		6.20e+00	UGG
4.0	03-nov-1991	KF10	NIT		1.30e+01	UGG
8.0	03-nov-1991	KF10	NIT		1.40e+01	UGG
2.0	03-nov-1991	KF10	NIT		2.00e+01	UGG
0.0	03-nov-1991	KF10	NIT		2.10e+01	UGG
2.0	03-nov-1991	KF10	NIT		2.20e+01	UGG
6.0	03-nov-1991	KF10	NIT		2.40e+01	UGG
0.0	03-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
4.0	03-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
10.0	03-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
0.0	03-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
4.0	03-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
10.0	03-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
0.0	03-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
4.0	03-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
10.0	03-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
0.0	03-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
4.0	03-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
10.0	03-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
0.0	03-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
4.0	03-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
10.0	03-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
0.0	03-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
4.0	03-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
10.0	03-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
0.0	03-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
4.0	03-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
10.0	03-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
0.0	03-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
4.0	03-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
10.0	03-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
4.0	03-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
10.0	03-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
0.0	03-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
4.0	03-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
10.0	03-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
0.0	03-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
4.0	03-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
10.0	03-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
0.0	03-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
4.0	03-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
10.0	03-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
0.0	03-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
4.0	03-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
10.0	03-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
0.0	03-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
4.0	03-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
10.0	03-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
0.0	03-nov-1991	LH10	LIN	LT	6.38e-03	UGG
4.0	03-nov-1991	LH10	LIN	LT	6.38e-03	UGG
10.0	03-nov-1991	LH10	LIN	LT	6.38e-03	UGG
0.0	03-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
4.0	03-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
10.0	03-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
0.0	03-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
4.0	03-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
10.0	03-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
0.0	03-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
4.0	03-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
10.0	03-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
0.0	03-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
4.0	03-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
10.0	03-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
0.0	03-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
4.0	03-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
10.0	03-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
0.0	03-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
4.0	03-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
10.0	03-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
0.0	03-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB242	ND	8.20e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	03-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
4.0	03-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
10.0	03-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
0.0	03-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
4.0	03-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
10.0	03-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
0.0	03-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
4.0	03-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
10.0	03-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
0.0	03-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
4.0	03-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
10.0	03-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
0.0	03-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
4.0	03-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
10.0	03-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
0.0	03-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
4.0	03-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
10.0	03-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
0.0	03-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
4.0	03-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
10.0	03-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
0.0	03-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
4.0	03-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
10.0	03-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
0.0	03-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
4.0	03-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
10.0	03-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
0.0	03-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
4.0	03-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
10.0	03-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
0.0	03-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
4.0	03-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
10.0	03-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
0.0	03-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
4.0	03-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
10.0	03-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
0.0	03-nov-1991	LM18	24DNT		4.85e-01	UGG
4.0	03-nov-1991	LM18	24DNT	LT	1.40e-01	UGG
10.0	03-nov-1991	LM18	24DNT	LT	1.40e-01	UGG
0.0	03-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
4.0	03-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
10.0	03-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
0.0	03-nov-1991	LM18	2CLP	LT	6.00e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	03-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
10.0	03-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
0.0	03-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
4.0	03-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
10.0	03-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
0.0	03-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
4.0	03-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
10.0	03-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
0.0	03-nov-1991	LM18	2MP	LT	2.90e-02	UGG
4.0	03-nov-1991	LM18	2MP	LT	2.90e-02	UGG
10.0	03-nov-1991	LM18	2MP	LT	2.90e-02	UGG
0.0	03-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
4.0	03-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
10.0	03-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
0.0	03-nov-1991	LM18	2NP	LT	1.40e-01	UGG
4.0	03-nov-1991	LM18	2NP	LT	1.40e-01	UGG
10.0	03-nov-1991	LM18	2NP	LT	1.40e-01	UGG
0.0	03-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
4.0	03-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
10.0	03-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
0.0	03-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
4.0	03-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
10.0	03-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
0.0	03-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
4.0	03-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
10.0	03-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
0.0	03-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
4.0	03-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
10.0	03-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
0.0	03-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
4.0	03-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
10.0	03-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
0.0	03-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	4MP	LT	2.40e-01	UGG
4.0	03-nov-1991	LM18	4MP	LT	2.40e-01	UGG
10.0	03-nov-1991	LM18	4MP	LT	2.40e-01	UGG
0.0	03-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
4.0	03-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
10.0	03-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
0.0	03-nov-1991	LM18	4NP	LT	1.40e+00	UGG
4.0	03-nov-1991	LM18	4NP	LT	1.40e+00	UGG
10.0	03-nov-1991	LM18	4NP	LT	1.40e+00	UGG
0.0	03-nov-1991	LM18	ABHC	ND	2.70e-01	UGG

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	03-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
0.0	03-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
4.0	03-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
10.0	03-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
0.0	03-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
0.0	03-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
4.0	03-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
10.0	03-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
0.0	03-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
4.0	03-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
10.0	03-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
0.0	03-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
4.0	03-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
10.0	03-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
0.0	03-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
4.0	03-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
10.0	03-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
0.0	03-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
4.0	03-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
10.0	03-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
0.0	03-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
4.0	03-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
10.0	03-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
0.0	03-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
4.0	03-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
10.0	03-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
0.0	03-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
4.0	03-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
10.0	03-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
0.0	03-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	03-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
10.0	03-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
0.0	03-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
4.0	03-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
10.0	03-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
0.0	03-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
4.0	03-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
10.0	03-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
0.0	03-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
4.0	03-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
10.0	03-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
0.0	03-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
4.0	03-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
10.0	03-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
0.0	03-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
4.0	03-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
10.0	03-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
0.0	03-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
4.0	03-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
10.0	03-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
0.0	03-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
4.0	03-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
10.0	03-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
0.0	03-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
4.0	03-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
10.0	03-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
0.0	03-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
4.0	03-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
10.0	03-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
0.0	03-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
4.0	03-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
10.0	03-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
0.0	03-nov-1991	LM18	DEP	LT	2.40e-01	UGG
4.0	03-nov-1991	LM18	DEP	LT	2.40e-01	UGG
10.0	03-nov-1991	LM18	DEP	LT	2.40e-01	UGG
0.0	03-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
4.0	03-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
10.0	03-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
0.0	03-nov-1991	LM18	DMP	LT	1.70e-01	UGG
4.0	03-nov-1991	LM18	DMP	LT	1.70e-01	UGG
10.0	03-nov-1991	LM18	DMP	LT	1.70e-01	UGG
0.0	03-nov-1991	LM18	DNBP	LT	6.10e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	03-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
10.0	03-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
0.0	03-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
4.0	03-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
10.0	03-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
0.0	03-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
4.0	03-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
10.0	03-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
0.0	03-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
4.0	03-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
10.0	03-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
0.0	03-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
4.0	03-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
10.0	03-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
0.0	03-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
4.0	03-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
10.0	03-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
0.0	03-nov-1991	LM18	FANT	LT	6.80e-02	UGG
4.0	03-nov-1991	LM18	FANT	LT	6.80e-02	UGG
10.0	03-nov-1991	LM18	FANT	LT	6.80e-02	UGG
0.0	03-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
0.0	03-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
4.0	03-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
10.0	03-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
0.0	03-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
4.0	03-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
10.0	03-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
0.0	03-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	HXMETA		2.11e+00	UGG
0.0	03-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
4.0	03-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
10.0	03-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
0.0	03-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	LIN	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	LIN	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	LIN	ND	2.70e-01	UGG
0.0	03-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
4.0	03-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
10.0	03-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM18	NAP	LT	3.70e-02	UGG
4.0	03-nov-1991	LM18	NAP	LT	3.70e-02	UGG
10.0	03-nov-1991	LM18	NAP	LT	3.70e-02	UGG
0.0	03-nov-1991	LM18	NB	LT	4.50e-02	UGG
4.0	03-nov-1991	LM18	NB	LT	4.50e-02	UGG
10.0	03-nov-1991	LM18	NB	LT	4.50e-02	UGG
0.0	03-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
4.0	03-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
10.0	03-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
0.0	03-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
4.0	03-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
10.0	03-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
0.0	03-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
4.0	03-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
10.0	03-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
0.0	03-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
4.0	03-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
10.0	03-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
0.0	03-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
4.0	03-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
10.0	03-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
0.0	03-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
4.0	03-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
10.0	03-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
0.0	03-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
4.0	03-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
10.0	03-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
0.0	03-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
4.0	03-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
10.0	03-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
0.0	03-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
4.0	03-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
10.0	03-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
0.0	03-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
4.0	03-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
10.0	03-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
0.0	03-nov-1991	LM18	PCP	LT	1.30e+00	UGG
4.0	03-nov-1991	LM18	PCP	LT	1.30e+00	UGG
10.0	03-nov-1991	LM18	PCP	LT	1.30e+00	UGG
0.0	03-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
4.0	03-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
10.0	03-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
0.0	03-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
4.0	03-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
10.0	03-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	03-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
4.0	03-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
10.0	03-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
0.0	03-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
4.0	03-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
10.0	03-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
0.0	03-nov-1991	LM18	PYR	LT	3.30e-02	UGG
4.0	03-nov-1991	LM18	PYR	LT	3.30e-02	UGG
10.0	03-nov-1991	LM18	PYR	LT	3.30e-02	UGG
0.0	03-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
4.0	03-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
10.0	03-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
0.0	03-nov-1991	LM18	UNK517		1.05e+00	UGG
4.0	03-nov-1991	LM18	UNK517		1.06e+00	UGG
0.0	03-nov-1991	LM18	UNK554		6.33e-01	UGG
4.0	03-nov-1991	LM18	UNK555		3.17e-01	UGG
0.0	03-nov-1991	LM18	UNK594 ~		7.38e+02	UGG
10.0	03-nov-1991	LM18	UNK595 *		4.80e+00	UGG
4.0	03-nov-1991	LM18	UNK595 *		6.34e+00	UGG
0.0	03-nov-1991	LM18	UNK598		9.49e-01	UGG
4.0	03-nov-1991	LM18	UNK633		7.40e-01	UGG
10.0	03-nov-1991	LM18	UNK642		8.40e-01	UGG
0.0	03-nov-1991	LM18	UNK644		1.05e+00	UGG
0.0	03-nov-1991	LM18	UNK651		3.16e+00	UGG
4.0	03-nov-1991	LM18	UNK655		1.06e+01	UGG
0.0	03-nov-1991	LM18	UNK658		6.33e+00	UGG
4.0	03-nov-1991	LM18	UNK660		3.17e-01	UGG
0.0	03-nov-1991	LM18	UNK667		1.05e+00	UGG
0.0	03-nov-1991	LM18	UNK668		2.11e+01	UGG
4.0	03-nov-1991	LM18	UNK669		5.29e-01	UGG
0.0	03-nov-1991	LM18	UNK680		2.11e+01	UGG
4.0	03-nov-1991	LM18	UNK681		3.17e-01	UGG
4.0	03-nov-1991	LM18	UNK685		6.34e+00	UGG
0.0	03-nov-1991	LM18	UNK693		1.05e+00	UGG
0.0	03-nov-1991	LM18	UNK694		1.05e+01	UGG
4.0	03-nov-1991	LM18	UNK696		3.17e-01	UGG
0.0	03-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
4.0	03-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
10.0	03-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
0.0	03-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
4.0	03-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
10.0	03-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
0.0	03-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
4.0	03-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
10.0	03-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
0.0	03-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
4.0	03-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG

~Trinitrotoluene
*Trinitrobenzene

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	03-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
0.0	03-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
4.0	03-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
10.0	03-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
0.0	03-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
4.0	03-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
10.0	03-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
0.0	03-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
4.0	03-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
10.0	03-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
0.0	03-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
4.0	03-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
10.0	03-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
0.0	03-nov-1991	LM19	ACET	LT	1.70e-02	UGG
4.0	03-nov-1991	LM19	ACET	LT	1.70e-02	UGG
10.0	03-nov-1991	LM19	ACET	LT	1.70e-02	UGG
0.0	03-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
4.0	03-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
10.0	03-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
0.0	03-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
4.0	03-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
10.0	03-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
0.0	03-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
4.0	03-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
10.0	03-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
0.0	03-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
4.0	03-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
10.0	03-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
0.0	03-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
4.0	03-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
10.0	03-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
0.0	03-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
4.0	03-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
10.0	03-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
0.0	03-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
4.0	03-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
10.0	03-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
0.0	03-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
4.0	03-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
10.0	03-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
0.0	03-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
4.0	03-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
10.0	03-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
0.0	03-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
4.0	03-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
10.0	03-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
0.0	03-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
4.0	03-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	03-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
0.0	03-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
4.0	03-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
10.0	03-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
0.0	03-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
4.0	03-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
10.0	03-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
0.0	03-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
4.0	03-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
10.0	03-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
0.0	03-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
4.0	03-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
10.0	03-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
0.0	03-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
4.0	03-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
10.0	03-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
0.0	03-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
4.0	03-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
10.0	03-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
0.0	03-nov-1991	LM19	CS2	LT	4.40e-03	UGG
4.0	03-nov-1991	LM19	CS2	LT	4.40e-03	UGG
10.0	03-nov-1991	LM19	CS2	LT	4.40e-03	UGG
0.0	03-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
4.0	03-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
10.0	03-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
0.0	03-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
4.0	03-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
10.0	03-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
0.0	03-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
4.0	03-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
10.0	03-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
0.0	03-nov-1991	LM19	MEK	LT	7.00e-02	UGG
4.0	03-nov-1991	LM19	MEK	LT	7.00e-02	UGG
10.0	03-nov-1991	LM19	MEK	LT	7.00e-02	UGG
0.0	03-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
4.0	03-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
10.0	03-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
0.0	03-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
4.0	03-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
10.0	03-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
0.0	03-nov-1991	LM19	STYR	LT	2.60e-03	UGG
4.0	03-nov-1991	LM19	STYR	LT	2.60e-03	UGG
10.0	03-nov-1991	LM19	STYR	LT	2.60e-03	UGG
0.0	03-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
4.0	03-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
10.0	03-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
0.0	03-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
4.0	03-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	03-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
0.0	03-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
4.0	03-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
10.0	03-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
0.0	03-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
4.0	03-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
10.0	03-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
0.0	03-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
4.0	03-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
10.0	03-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
25.0	03-nov-1991	LW12	135TNB		7.73e+00	UGG
30.0	03-nov-1991	LW12	135TNB		9.30e+00	UGG
45.0	04-nov-1991	LW12	135TNB		1.47e+01	UGG
50.0	04-nov-1991	LW12	135TNB		1.80e+01	UGG
10.0	03-nov-1991	LW12	135TNB		1.88e+01	UGG
8.0	03-nov-1991	LW12	135TNB		2.07e+01	UGG
4.0	03-nov-1991	LW12	135TNB		2.21e+01	UGG
2.0	03-nov-1991	LW12	135TNB		2.30e+01	UGG
0.0	03-nov-1991	LW12	135TNB		2.36e+01	UGG
20.0	03-nov-1991	LW12	135TNB		2.60e+01	UGG
2.0	03-nov-1991	LW12	135TNB		2.70e+01	UGG
15.0	03-nov-1991	LW12	135TNB		2.70e+01	UGG
35.0	03-nov-1991	LW12	135TNB		3.00e+01	UGG
40.0	04-nov-1991	LW12	135TNB		3.20e+01	UGG
6.0	03-nov-1991	LW12	135TNB		3.90e+01	UGG
0.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
2.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
2.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
4.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
6.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
8.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
10.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
15.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
20.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
25.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
30.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
35.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
40.0	04-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
45.0	04-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
50.0	04-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
4.0	03-nov-1991	LW12	246TNT		1.11e+00	UGG
20.0	03-nov-1991	LW12	246TNT		6.55e+00	UGG
25.0	03-nov-1991	LW12	246TNT		6.97e+00	UGG
30.0	03-nov-1991	LW12	246TNT		7.63e+00	UGG
35.0	03-nov-1991	LW12	246TNT		8.62e+00	UGG
40.0	04-nov-1991	LW12	246TNT		1.32e+01	UGG
15.0	03-nov-1991	LW12	246TNT		1.41e+01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
45.0	04-nov-1991	LW12	246TNT		1.41e+01	UGG
50.0	04-nov-1991	LW12	246TNT		2.70e+01	UGG
0.0	03-nov-1991	LW12	246TNT		5.20e+02	UGG
2.0	03-nov-1991	LW12	246TNT		7.80e+02	UGG
2.0	03-nov-1991	LW12	246TNT		9.80e+02	UGG
6.0	03-nov-1991	LW12	246TNT	LT	4.56e-01	UGG
8.0	03-nov-1991	LW12	246TNT	LT	4.56e-01	UGG
10.0	03-nov-1991	LW12	246TNT	LT	4.56e-01	UGG
6.0	03-nov-1991	LW12	24DNT		7.20e-01	UGG
30.0	03-nov-1991	LW12	24DNT		7.64e-01	UGG
35.0	03-nov-1991	LW12	24DNT		1.49e+00	UGG
45.0	04-nov-1991	LW12	24DNT		1.70e+00	UGG
50.0	04-nov-1991	LW12	24DNT		2.47e+00	UGG
40.0	04-nov-1991	LW12	24DNT		2.62e+00	UGG
0.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
2.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
2.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
4.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
8.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
10.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
15.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
20.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
25.0	03-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
8.0	03-nov-1991	LW12	26DNT		6.86e-01	UGG
6.0	03-nov-1991	LW12	26DNT		7.08e-01	UGG
15.0	03-nov-1991	LW12	26DNT		1.31e+00	UGG
20.0	03-nov-1991	LW12	26DNT		1.53e+00	UGG
0.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
2.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
2.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
4.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
10.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
25.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
30.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
35.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
40.0	04-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
45.0	04-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
50.0	04-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
8.0	03-nov-1991	LW12	HMX		2.33e+00	UGG
15.0	03-nov-1991	LW12	HMX		3.03e+00	UGG
4.0	03-nov-1991	LW12	HMX		3.64e+00	UGG
25.0	03-nov-1991	LW12	HMX		5.82e+00	UGG
30.0	03-nov-1991	LW12	HMX		7.12e+00	UGG
20.0	03-nov-1991	LW12	HMX		9.35e+00	UGG
45.0	04-nov-1991	LW12	HMX		1.02e+01	UGG
35.0	03-nov-1991	LW12	HMX		1.32e+01	UGG
40.0	04-nov-1991	LW12	HMX		1.56e+01	UGG
50.0	04-nov-1991	LW12	HMX		1.90e+01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
2.0	03-nov-1991	LW12	HMX		2.70e+01	UGG
2.0	03-nov-1991	LW12	HMX		3.25e+01	UGG
0.0	03-nov-1991	LW12	HMX		4.70e+01	UGG
6.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
10.0	03-nov-1991	LW12	HMX	LT	6.66e-01	UGG
0.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
2.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
2.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
4.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
6.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
8.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
10.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
15.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
20.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
25.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
30.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
35.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
40.0	04-nov-1991	LW12	NB	LT	2.41e+00	UGG
45.0	04-nov-1991	LW12	NB	LT	2.41e+00	UGG
50.0	04-nov-1991	LW12	NB	LT	2.41e+00	UGG
10.0	03-nov-1991	LW12	RDX		4.76e+00	UGG
50.0	04-nov-1991	LW12	RDX		5.15e+00	UGG
45.0	04-nov-1991	LW12	RDX		6.06e+00	UGG
25.0	03-nov-1991	LW12	RDX		6.55e+00	UGG
8.0	03-nov-1991	LW12	RDX		8.48e+00	UGG
30.0	03-nov-1991	LW12	RDX		9.00e+00	UGG
15.0	03-nov-1991	LW12	RDX		1.01e+01	UGG
20.0	03-nov-1991	LW12	RDX		1.35e+01	UGG
6.0	03-nov-1991	LW12	RDX		1.42e+01	UGG
35.0	03-nov-1991	LW12	RDX		2.31e+01	UGG
40.0	04-nov-1991	LW12	RDX		3.10e+01	UGG
4.0	03-nov-1991	LW12	RDX		1.50e+02	UGG
0.0	03-nov-1991	LW12	RDX		1.40e+03	UGG
2.0	03-nov-1991	LW12	RDX		1.50e+03	UGG
2.0	03-nov-1991	LW12	RDX		1.90e+03	UGG
0.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
2.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
2.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
4.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
6.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
8.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
10.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
15.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
20.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
25.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
30.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
35.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
40.0	04-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG

Site: BORE S04B006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
45.0	04-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
50.0	04-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG

Site: BORE S04B007

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	01-nov-1991	00	ALK		5.00e+01	UGG
10.0	02-nov-1991	00	ALK		6.60e+01	UGG
0.0	01-nov-1991	00	ALK		1.94e+02	UGG
4.0	01-nov-1991	00	PH		7.87e+00	
10.0	02-nov-1991	00	PH		8.08e+00	
0.0	01-nov-1991	00	PH		8.35e+00	
10.0	02-nov-1991	00	TOC		2.19e+03	UGG
4.0	01-nov-1991	00	TOC		3.12e+03	UGG
0.0	01-nov-1991	00	TOC		4.88e+03	UGG
0.0	01-nov-1991	JB01	HG	LT	5.00e-02	UGG
4.0	01-nov-1991	JB01	HG	LT	5.00e-02	UGG
10.0	02-nov-1991	JB01	HG	LT	5.00e-02	UGG
0.0	01-nov-1991	JD15	SE	LT	2.50e-01	UGG
4.0	01-nov-1991	JD15	SE	LT	2.50e-01	UGG
10.0	02-nov-1991	JD15	SE	LT	2.50e-01	UGG
0.0	01-nov-1991	JD17	PB		5.02e+00	UGG
4.0	01-nov-1991	JD17	PB		5.82e+00	UGG
10.0	02-nov-1991	JD17	PB		6.11e+00	UGG
0.0	01-nov-1991	JD19	AS		2.22e+00	UGG
4.0	01-nov-1991	JD19	AS		2.38e+00	UGG
10.0	02-nov-1991	JD19	AS		2.59e+00	UGG
0.0	01-nov-1991	JS16	AG		1.23e+00	UGG
10.0	02-nov-1991	JS16	AG		1.51e+00	UGG
4.0	01-nov-1991	JS16	AG		1.52e+00	UGG
0.0	01-nov-1991	JS16	AL		5.71e+03	UGG
4.0	01-nov-1991	JS16	AL		7.60e+03	UGG
10.0	02-nov-1991	JS16	AL		8.37e+03	UGG
0.0	01-nov-1991	JS16	BA		8.36e+01	UGG
4.0	01-nov-1991	JS16	BA		9.11e+01	UGG
10.0	02-nov-1991	JS16	BA		1.36e+02	UGG
0.0	01-nov-1991	JS16	BE		1.96e+00	UGG
4.0	01-nov-1991	JS16	BE		2.45e+00	UGG
10.0	02-nov-1991	JS16	BE		2.48e+00	UGG
4.0	01-nov-1991	JS16	CA		1.10e+04	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	01-nov-1991	JS16	CA		1.31e+04	UGG
10.0	02-nov-1991	JS16	CA		1.39e+04	UGG
0.0	01-nov-1991	JS16	CD	LT	7.00e-01	UGG
4.0	01-nov-1991	JS16	CD	LT	7.00e-01	UGG
10.0	02-nov-1991	JS16	CD	LT	7.00e-01	UGG
0.0	01-nov-1991	JS16	CO		1.35e+01	UGG
4.0	01-nov-1991	JS16	CO		1.59e+01	UGG
10.0	02-nov-1991	JS16	CO		1.71e+01	UGG
0.0	01-nov-1991	JS16	CR		8.35e+00	UGG
10.0	02-nov-1991	JS16	CR		1.05e+01	UGG
4.0	01-nov-1991	JS16	CR		1.13e+01	UGG
4.0	01-nov-1991	JS16	CU		1.27e+01	UGG
0.0	01-nov-1991	JS16	CU		1.33e+01	UGG
10.0	02-nov-1991	JS16	CU		1.71e+01	UGG
0.0	01-nov-1991	JS16	FE		2.39e+04	UGG
4.0	01-nov-1991	JS16	FE		2.89e+04	UGG
10.0	02-nov-1991	JS16	FE		3.10e+04	UGG
0.0	01-nov-1991	JS16	K		9.51e+02	UGG
4.0	01-nov-1991	JS16	K		1.21e+03	UGG
10.0	02-nov-1991	JS16	K		1.39e+03	UGG
0.0	01-nov-1991	JS16	MG		5.19e+03	UGG
10.0	02-nov-1991	JS16	MG		6.72e+03	UGG
4.0	01-nov-1991	JS16	MG		6.99e+03	UGG
0.0	01-nov-1991	JS16	MN		4.53e+02	UGG
4.0	01-nov-1991	JS16	MN		4.62e+02	UGG
10.0	02-nov-1991	JS16	MN		4.86e+02	UGG
0.0	01-nov-1991	JS16	NA		3.69e+02	UGG
4.0	01-nov-1991	JS16	NA		4.19e+02	UGG
10.0	02-nov-1991	JS16	NA		5.10e+02	UGG
0.0	01-nov-1991	JS16	NI		8.37e+00	UGG
10.0	02-nov-1991	JS16	NI		9.89e+00	UGG
4.0	01-nov-1991	JS16	NI		1.13e+01	UGG
0.0	01-nov-1991	JS16	SB	LT	7.14e+00	UGG
4.0	01-nov-1991	JS16	SB	LT	7.14e+00	UGG
10.0	02-nov-1991	JS16	SB	LT	7.14e+00	UGG
4.0	01-nov-1991	JS16	TL		2.89e+01	UGG
10.0	02-nov-1991	JS16	TL		2.95e+01	UGG
0.0	01-nov-1991	JS16	TL		3.09e+01	UGG
0.0	01-nov-1991	JS16	V		7.87e+01	UGG
4.0	01-nov-1991	JS16	V		8.97e+01	UGG
10.0	02-nov-1991	JS16	V		9.58e+01	UGG
0.0	01-nov-1991	JS16	ZN		5.14e+01	UGG
10.0	02-nov-1991	JS16	ZN		6.22e+01	UGG
4.0	01-nov-1991	JS16	ZN		6.25e+01	UGG
0.0	01-nov-1991	KF10	NIT		7.10e-01	UGG
2.0	01-nov-1991	KF10	NIT		7.50e-01	UGG
45.0	02-nov-1991	KF10	NIT		3.19e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
45.0	02-nov-1991	KF10	NIT		3.77e+00	UGG
4.0	01-nov-1991	KF10	NIT		4.18e+00	UGG
8.0	02-nov-1991	KF10	NIT		9.66e+00	UGG
25.0	02-nov-1991	KF10	NIT		2.90e+01	UGG
6.0	02-nov-1991	KF10	NIT		3.00e+01	UGG
30.0	02-nov-1991	KF10	NIT		3.00e+01	UGG
20.0	02-nov-1991	KF10	NIT		4.50e+01	UGG
10.0	02-nov-1991	KF10	NIT		6.60e+01	UGG
40.0	02-nov-1991	KF10	NIT		6.60e+01	UGG
35.0	02-nov-1991	KF10	NIT		7.20e+01	UGG
15.0	02-nov-1991	KF10	NIT		1.00e+02	UGG
0.0	01-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
4.0	01-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
10.0	02-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
0.0	01-nov-1991	LH10	ACLDAN	ND	5.00e-03	UGG
4.0	01-nov-1991	LH10	ACLDAN	ND	5.00e-03	UGG
10.0	02-nov-1991	LH10	ACLDAN	ND	5.00e-03	UGG
0.0	01-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
4.0	01-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
10.0	02-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
0.0	01-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
4.0	01-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
10.0	02-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
0.0	01-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
4.0	01-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
10.0	02-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
0.0	01-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
4.0	01-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
10.0	02-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
0.0	01-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
4.0	01-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
10.0	02-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
0.0	01-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
4.0	01-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
10.0	02-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
0.0	01-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
4.0	01-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
10.0	02-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
0.0	01-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
4.0	01-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
10.0	02-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
0.0	01-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
4.0	01-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
10.0	02-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
0.0	01-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
4.0	01-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
10.0	02-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	01-nov-1991	LH10	GCLDAN	ND	5.00e-03	UGG
4.0	01-nov-1991	LH10	GCLDAN	ND	5.00e-03	UGG
10.0	02-nov-1991	LH10	GCLDAN	ND	5.00e-03	UGG
0.0	01-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
4.0	01-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
10.0	02-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
0.0	01-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
4.0	01-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
10.0	02-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
0.0	01-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
4.0	01-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
10.0	02-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
0.0	01-nov-1991	LH10	LIN	LT	6.38e-03	UGG
4.0	01-nov-1991	LH10	LIN	LT	6.38e-03	UGG
10.0	02-nov-1991	LH10	LIN	LT	6.38e-03	UGG
0.0	01-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
4.0	01-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
10.0	02-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
0.0	01-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
4.0	01-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
10.0	02-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
0.0	01-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
4.0	01-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
10.0	02-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
0.0	01-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
4.0	01-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
10.0	02-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
0.0	01-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
4.0	01-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
10.0	02-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
0.0	01-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
4.0	01-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
10.0	02-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
0.0	01-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
4.0	01-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
0.0	01-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
4.0	01-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
0.0	01-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
4.0	01-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
0.0	01-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
4.0	01-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
0.0	01-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
4.0	01-nov-1991	LH16	PCB254	ND	8.20e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
0.0	01-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
4.0	01-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
10.0	02-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
0.0	01-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
4.0	01-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
10.0	02-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
0.0	01-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
4.0	01-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
10.0	02-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
0.0	01-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
4.0	01-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
10.0	02-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
4.0	01-nov-1991	LM18	12EPCH		3.64e-01	UGG
0.0	01-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
4.0	01-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
10.0	02-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
0.0	01-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
4.0	01-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
10.0	02-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
0.0	01-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
4.0	01-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
10.0	02-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
0.0	01-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
4.0	01-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
10.0	02-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
0.0	01-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
4.0	01-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
10.0	02-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
0.0	01-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
4.0	01-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
10.0	02-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
0.0	01-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
4.0	01-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
10.0	02-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
10.0	02-nov-1991	LM18	24DNT		1.13e+00	UGG
0.0	01-nov-1991	LM18	24DNT	LT	1.40e-01	UGG
4.0	01-nov-1991	LM18	24DNT	LT	1.40e-01	UGG
0.0	01-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
4.0	01-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
10.0	02-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
0.0	01-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
4.0	01-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
10.0	02-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
0.0	01-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
4.0	01-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
10.0	02-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	01-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
4.0	01-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
10.0	02-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
0.0	01-nov-1991	LM18	2MP	LT	2.90e-02	UGG
4.0	01-nov-1991	LM18	2MP	LT	2.90e-02	UGG
10.0	02-nov-1991	LM18	2MP	LT	2.90e-02	UGG
0.0	01-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
4.0	01-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
10.0	02-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
0.0	01-nov-1991	LM18	2NP	LT	1.40e-01	UGG
4.0	01-nov-1991	LM18	2NP	LT	1.40e-01	UGG
10.0	02-nov-1991	LM18	2NP	LT	1.40e-01	UGG
0.0	01-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
4.0	01-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
10.0	02-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
0.0	01-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
4.0	01-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
10.0	02-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
0.0	01-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
4.0	01-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
10.0	02-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
0.0	01-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
4.0	01-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
10.0	02-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
0.0	01-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
4.0	01-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
10.0	02-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
0.0	01-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	4MP	LT	2.40e-01	UGG
4.0	01-nov-1991	LM18	4MP	LT	2.40e-01	UGG
10.0	02-nov-1991	LM18	4MP	LT	2.40e-01	UGG
0.0	01-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
4.0	01-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
10.0	02-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
0.0	01-nov-1991	LM18	4NP	LT	1.40e+00	UGG
4.0	01-nov-1991	LM18	4NP	LT	1.40e+00	UGG
10.0	02-nov-1991	LM18	4NP	LT	1.40e+00	UGG
0.0	01-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
4.0	01-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
0.0	01-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
4.0	01-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	01-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
4.0	01-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
10.0	02-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
0.0	01-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
4.0	01-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
0.0	01-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
4.0	01-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
10.0	02-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
0.0	01-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
4.0	01-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
10.0	02-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
0.0	01-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
4.0	01-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
10.0	02-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
0.0	01-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
4.0	01-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
10.0	02-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
0.0	01-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
4.0	01-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
10.0	02-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
0.0	01-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
4.0	01-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
10.0	02-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
0.0	01-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
4.0	01-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
10.0	02-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
0.0	01-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
4.0	01-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
0.0	01-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
4.0	01-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
10.0	02-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
0.0	01-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
4.0	01-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
10.0	02-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
0.0	01-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
4.0	01-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
10.0	02-nov-1991	LM18	BENZID	ND	8.50e-01	UGG

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	01-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
4.0	01-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
10.0	02-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
0.0	01-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
4.0	01-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
10.0	02-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
0.0	01-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
4.0	01-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
10.0	02-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
0.0	01-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
4.0	01-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
10.0	02-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
0.0	01-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
4.0	01-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
10.0	02-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
0.0	01-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
4.0	01-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
10.0	02-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
0.0	01-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
4.0	01-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
10.0	02-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
0.0	01-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
4.0	01-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
10.0	02-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
0.0	01-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
4.0	01-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
0.0	01-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
4.0	01-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
10.0	02-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
0.0	01-nov-1991	LM18	DEP	LT	2.40e-01	UGG
4.0	01-nov-1991	LM18	DEP	LT	2.40e-01	UGG
10.0	02-nov-1991	LM18	DEP	LT	2.40e-01	UGG
0.0	01-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
4.0	01-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
10.0	02-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
0.0	01-nov-1991	LM18	DMP	LT	1.70e-01	UGG
4.0	01-nov-1991	LM18	DMP	LT	1.70e-01	UGG
10.0	02-nov-1991	LM18	DMP	LT	1.70e-01	UGG
0.0	01-nov-1991	LM18	DNBP		9.04e-02	UGG
4.0	01-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
10.0	02-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
0.0	01-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
4.0	01-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
10.0	02-nov-1991	LM18	DNOP	LT	1.90e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	01-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
4.0	01-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
10.0	02-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
0.0	01-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
4.0	01-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
10.0	02-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
0.0	01-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
4.0	01-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
10.0	02-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
0.0	01-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
4.0	01-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
10.0	02-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
0.0	01-nov-1991	LM18	FANT	LT	6.80e-02	UGG
4.0	01-nov-1991	LM18	FANT	LT	6.80e-02	UGG
10.0	02-nov-1991	LM18	FANT	LT	6.80e-02	UGG
0.0	01-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
4.0	01-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
0.0	01-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
4.0	01-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
10.0	02-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
0.0	01-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
4.0	01-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
10.0	02-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
0.0	01-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
4.0	01-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
4.0	01-nov-1991	LM18	HXMETA		1.21e+00	UGG
0.0	01-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
4.0	01-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
10.0	02-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
0.0	01-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	LIN	ND	2.70e-01	UGG
4.0	01-nov-1991	LM18	LIN	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	LIN	ND	2.70e-01	UGG
0.0	01-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
4.0	01-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
0.0	01-nov-1991	LM18	NAP	LT	3.70e-02	UGG
4.0	01-nov-1991	LM18	NAP	LT	3.70e-02	UGG
10.0	02-nov-1991	LM18	NAP	LT	3.70e-02	UGG
0.0	01-nov-1991	LM18	NB	LT	4.50e-02	UGG
4.0	01-nov-1991	LM18	NB	LT	4.50e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LM18	NB	LT	4.50e-02	UGG
0.0	01-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
4.0	01-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
10.0	02-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
0.0	01-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
4.0	01-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
10.0	02-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
0.0	01-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
4.0	01-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
10.0	02-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
0.0	01-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
4.0	01-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
10.0	02-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
0.0	01-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
4.0	01-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
10.0	02-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
0.0	01-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
4.0	01-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
10.0	02-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
0.0	01-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
4.0	01-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
10.0	02-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
0.0	01-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
4.0	01-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
10.0	02-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
0.0	01-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
4.0	01-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
10.0	02-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
0.0	01-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
4.0	01-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
10.0	02-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
0.0	01-nov-1991	LM18	PCP	LT	1.30e+00	UGG
4.0	01-nov-1991	LM18	PCP	LT	1.30e+00	UGG
10.0	02-nov-1991	LM18	PCP	LT	1.30e+00	UGG
0.0	01-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
4.0	01-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
10.0	02-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
0.0	01-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
4.0	01-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
0.0	01-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
4.0	01-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
10.0	02-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
0.0	01-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
4.0	01-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
0.0	01-nov-1991	LM18	PYR	LT	3.30e-02	UGG
4.0	01-nov-1991	LM18	PYR	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	PYR	LT	3.30e-02	UGG
0.0	01-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
4.0	01-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
10.0	02-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
4.0	01-nov-1991	LM18	UNK517		8.48e-01	UGG
4.0	01-nov-1991	LM18	UNK595 *		6.06e+00	UGG
10.0	02-nov-1991	LM18	UNK595 *		6.42e+00	UGG
0.0	01-nov-1991	LM18	UNK596 ¯		2.11e+02	UGG
0.0	01-nov-1991	LM18	UNK603		8.45e-01	UGG
0.0	01-nov-1991	LM18	UNK645		3.17e-01	UGG
0.0	01-nov-1991	LM18	UNK660		6.34e-01	UGG
0.0	01-nov-1991	LM18	UNK669		9.50e-01	UGG
0.0	01-nov-1991	LM18	UNK681		7.39e-01	UGG
0.0	01-nov-1991	LM18	UNK696		9.50e-01	UGG
0.0	01-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
4.0	01-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
10.0	02-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
0.0	01-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
4.0	01-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
10.0	02-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
0.0	01-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
4.0	01-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
10.0	02-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
0.0	01-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
4.0	01-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
10.0	02-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
0.0	01-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
4.0	01-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
10.0	02-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
0.0	01-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
4.0	01-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
10.0	02-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
0.0	01-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
4.0	01-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
10.0	02-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
0.0	01-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
4.0	01-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
10.0	02-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
0.0	01-nov-1991	LM19	ACET	LT	1.70e-02	UGG
4.0	01-nov-1991	LM19	ACET	LT	1.70e-02	UGG
10.0	02-nov-1991	LM19	ACET	LT	1.70e-02	UGG
0.0	01-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
4.0	01-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
10.0	02-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG

*Trinitrobenzene
¯Trinitrotoluene

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	01-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
4.0	01-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
10.0	02-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
0.0	01-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
4.0	01-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
10.0	02-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
0.0	01-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
4.0	01-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
10.0	02-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
0.0	01-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
4.0	01-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
10.0	02-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
0.0	01-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
4.0	01-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
10.0	02-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
0.0	01-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
4.0	01-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
10.0	02-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
0.0	01-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
4.0	01-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
10.0	02-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
0.0	01-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
4.0	01-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
10.0	02-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
0.0	01-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
4.0	01-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
10.0	02-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
0.0	01-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
4.0	01-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
10.0	02-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
0.0	01-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
4.0	01-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
10.0	02-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
0.0	01-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
4.0	01-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
10.0	02-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
0.0	01-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
4.0	01-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
10.0	02-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
0.0	01-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
4.0	01-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
10.0	02-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
0.0	01-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
4.0	01-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
10.0	02-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
0.0	01-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
4.0	01-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
10.0	02-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	01-nov-1991	LM19	CS2	LT	4.40e-03	UGG
4.0	01-nov-1991	LM19	CS2	LT	4.40e-03	UGG
10.0	02-nov-1991	LM19	CS2	LT	4.40e-03	UGG
0.0	01-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
4.0	01-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
10.0	02-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
0.0	01-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
4.0	01-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
10.0	02-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
0.0	01-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
4.0	01-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
10.0	02-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
0.0	01-nov-1991	LM19	MEK	LT	7.00e-02	UGG
4.0	01-nov-1991	LM19	MEK	LT	7.00e-02	UGG
10.0	02-nov-1991	LM19	MEK	LT	7.00e-02	UGG
0.0	01-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
4.0	01-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
10.0	02-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
0.0	01-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
4.0	01-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
10.0	02-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
0.0	01-nov-1991	LM19	STYR	LT	2.60e-03	UGG
4.0	01-nov-1991	LM19	STYR	LT	2.60e-03	UGG
10.0	02-nov-1991	LM19	STYR	LT	2.60e-03	UGG
0.0	01-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
4.0	01-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
10.0	02-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
0.0	01-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
4.0	01-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
10.0	02-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
0.0	01-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
4.0	01-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
10.0	02-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
0.0	01-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
4.0	01-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
10.0	02-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
0.0	01-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
4.0	01-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
10.0	02-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
20.0	02-nov-1991	LW12	135TNB		1.87e+00	UGG
20.0	02-nov-1991	LW12	135TNB		1.87e+00	UGG
0.0	01-nov-1991	LW12	135TNB		1.70e+01	UGG
0.0	01-nov-1991	LW12	135TNB		1.70e+01	UGG
4.0	01-nov-1991	LW12	135TNB		1.80e+01	UGG
4.0	01-nov-1991	LW12	135TNB		1.80e+01	UGG
45.0	02-nov-1991	LW12	135TNB		1.80e+01	UGG
45.0	02-nov-1991	LW12	135TNB		1.90e+01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
35.0	02-nov-1991	LW12	135TNB		2.09e+01	UGG
2.0	01-nov-1991	LW12	135TNB		2.10e+01	UGG
2.0	01-nov-1991	LW12	135TNB		2.10e+01	UGG
25.0	02-nov-1991	LW12	135TNB		2.29e+01	UGG
25.0	02-nov-1991	LW12	135TNB		2.29e+01	UGG
8.0	02-nov-1991	LW12	135TNB		2.30e+01	UGG
8.0	02-nov-1991	LW12	135TNB		2.30e+01	UGG
40.0	02-nov-1991	LW12	135TNB		3.80e+01	UGG
10.0	02-nov-1991	LW12	135TNB		3.90e+01	UGG
10.0	02-nov-1991	LW12	135TNB		3.90e+01	UGG
15.0	02-nov-1991	LW12	135TNB		3.90e+01	UGG
15.0	02-nov-1991	LW12	135TNB		3.90e+01	UGG
30.0	02-nov-1991	LW12	135TNB		4.00e+01	UGG
30.0	02-nov-1991	LW12	135TNB		4.00e+01	UGG
6.0	02-nov-1991	LW12	135TNB		4.70e+01	UGG
6.0	02-nov-1991	LW12	135TNB		4.70e+01	UGG
45.0	02-nov-1991	LW12	13DNB		5.47e-01	UGG
40.0	02-nov-1991	LW12	13DNB		9.99e-01	UGG
0.0	01-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
0.0	01-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
2.0	01-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
2.0	01-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
4.0	01-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
4.0	01-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
6.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
6.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
8.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
8.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
10.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
10.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
15.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
15.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
20.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
20.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
25.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
25.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
30.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
30.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
35.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
45.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
4.0	01-nov-1991	LW12	246TNT		7.96e-01	UGG
4.0	01-nov-1991	LW12	246TNT		7.96e-01	UGG
6.0	02-nov-1991	LW12	246TNT		1.04e+00	UGG
6.0	02-nov-1991	LW12	246TNT		1.04e+00	UGG
8.0	02-nov-1991	LW12	246TNT		1.41e+00	UGG
8.0	02-nov-1991	LW12	246TNT		1.41e+00	UGG
35.0	02-nov-1991	LW12	246TNT		2.16e+00	UGG
10.0	02-nov-1991	LW12	246TNT		4.23e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LW12	246TNT		4.23e+00	UGG
20.0	02-nov-1991	LW12	246TNT		4.36e+00	UGG
20.0	02-nov-1991	LW12	246TNT		4.36e+00	UGG
40.0	02-nov-1991	LW12	246TNT		4.57e+00	UGG
25.0	02-nov-1991	LW12	246TNT		1.14e+01	UGG
25.0	02-nov-1991	LW12	246TNT		1.14e+01	UGG
30.0	02-nov-1991	LW12	246TNT		2.02e+01	UGG
30.0	02-nov-1991	LW12	246TNT		2.02e+01	UGG
45.0	02-nov-1991	LW12	246TNT		2.40e+01	UGG
45.0	02-nov-1991	LW12	246TNT		2.70e+01	UGG
15.0	02-nov-1991	LW12	246TNT		3.40e+01	UGG
15.0	02-nov-1991	LW12	246TNT		3.40e+01	UGG
2.0	01-nov-1991	LW12	246TNT		1.30e+03	UGG
2.0	01-nov-1991	LW12	246TNT		1.30e+03	UGG
0.0	01-nov-1991	LW12	246TNT		1.40e+03	UGG
0.0	01-nov-1991	LW12	246TNT		1.40e+03	UGG
8.0	02-nov-1991	LW12	24DNT		6.14e-01	UGG
8.0	02-nov-1991	LW12	24DNT		6.14e-01	UGG
6.0	02-nov-1991	LW12	24DNT		6.83e-01	UGG
6.0	02-nov-1991	LW12	24DNT		6.83e-01	UGG
35.0	02-nov-1991	LW12	24DNT		1.21e+00	UGG
40.0	02-nov-1991	LW12	24DNT		2.34e+00	UGG
10.0	02-nov-1991	LW12	24DNT		2.65e+00	UGG
10.0	02-nov-1991	LW12	24DNT		2.65e+00	UGG
25.0	02-nov-1991	LW12	24DNT		2.93e+00	UGG
25.0	02-nov-1991	LW12	24DNT		2.93e+00	UGG
20.0	02-nov-1991	LW12	24DNT		3.04e+00	UGG
20.0	02-nov-1991	LW12	24DNT		3.04e+00	UGG
45.0	02-nov-1991	LW12	24DNT		3.47e+00	UGG
30.0	02-nov-1991	LW12	24DNT		3.96e+00	UGG
30.0	02-nov-1991	LW12	24DNT		3.96e+00	UGG
45.0	02-nov-1991	LW12	24DNT		4.41e+00	UGG
15.0	02-nov-1991	LW12	24DNT		1.62e+01	UGG
15.0	02-nov-1991	LW12	24DNT		1.62e+01	UGG
0.0	01-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
0.0	01-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
2.0	01-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
2.0	01-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
4.0	01-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
4.0	01-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
0.0	01-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
0.0	01-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
2.0	01-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
2.0	01-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
4.0	01-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
4.0	01-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
6.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
6.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
8.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
8.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
10.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
10.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
15.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
15.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
20.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
20.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
25.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
25.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
30.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
30.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
35.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
40.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
45.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
45.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
2.0	01-nov-1991	LW12	HMX		3.35e+00	UGG
2.0	01-nov-1991	LW12	HMX		3.35e+00	UGG
35.0	02-nov-1991	LW12	HMX		3.67e+00	UGG
20.0	02-nov-1991	LW12	HMX		5.13e+00	UGG
20.0	02-nov-1991	LW12	HMX		5.13e+00	UGG
40.0	02-nov-1991	LW12	HMX		7.93e+00	UGG
10.0	02-nov-1991	LW12	HMX		1.14e+01	UGG
10.0	02-nov-1991	LW12	HMX		1.14e+01	UGG
45.0	02-nov-1991	LW12	HMX		1.30e+01	UGG
45.0	02-nov-1991	LW12	HMX		1.48e+01	UGG
25.0	02-nov-1991	LW12	HMX		1.64e+01	UGG
25.0	02-nov-1991	LW12	HMX		1.64e+01	UGG
30.0	02-nov-1991	LW12	HMX		2.19e+01	UGG
30.0	02-nov-1991	LW12	HMX		2.19e+01	UGG
15.0	02-nov-1991	LW12	HMX		4.70e+01	UGG
15.0	02-nov-1991	LW12	HMX		4.70e+01	UGG
0.0	01-nov-1991	LW12	HMX	LT	6.66e-01	UGG
0.0	01-nov-1991	LW12	HMX	LT	6.66e-01	UGG
4.0	01-nov-1991	LW12	HMX	LT	6.66e-01	UGG
4.0	01-nov-1991	LW12	HMX	LT	6.66e-01	UGG
6.0	02-nov-1991	LW12	HMX	LT	6.66e-01	UGG
6.0	02-nov-1991	LW12	HMX	LT	6.66e-01	UGG
8.0	02-nov-1991	LW12	HMX	LT	6.66e-01	UGG
8.0	02-nov-1991	LW12	HMX	LT	6.66e-01	UGG
0.0	01-nov-1991	LW12	NB	LT	2.41e+00	UGG
0.0	01-nov-1991	LW12	NB	LT	2.41e+00	UGG
2.0	01-nov-1991	LW12	NB	LT	2.41e+00	UGG
2.0	01-nov-1991	LW12	NB	LT	2.41e+00	UGG
4.0	01-nov-1991	LW12	NB	LT	2.41e+00	UGG
4.0	01-nov-1991	LW12	NB	LT	2.41e+00	UGG
6.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
6.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
8.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
8.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
10.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
10.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
15.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
15.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
20.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
20.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
25.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
25.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
30.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
30.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
35.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
40.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
45.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
45.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
8.0	02-nov-1991	LW12	RDX		2.78e+00	UGG
8.0	02-nov-1991	LW12	RDX		2.78e+00	UGG
45.0	02-nov-1991	LW12	RDX		2.91e+00	UGG
45.0	02-nov-1991	LW12	RDX		3.24e+00	UGG
0.0	01-nov-1991	LW12	RDX		3.38e+00	UGG
0.0	01-nov-1991	LW12	RDX		3.38e+00	UGG
35.0	02-nov-1991	LW12	RDX		9.68e+00	UGG
2.0	01-nov-1991	LW12	RDX		1.26e+01	UGG
2.0	01-nov-1991	LW12	RDX		1.26e+01	UGG
40.0	02-nov-1991	LW12	RDX		1.26e+01	UGG
10.0	02-nov-1991	LW12	RDX		2.80e+01	UGG
10.0	02-nov-1991	LW12	RDX		2.80e+01	UGG
25.0	02-nov-1991	LW12	RDX		3.00e+01	UGG
25.0	02-nov-1991	LW12	RDX		3.00e+01	UGG
6.0	02-nov-1991	LW12	RDX		3.60e+01	UGG
6.0	02-nov-1991	LW12	RDX		3.60e+01	UGG
4.0	01-nov-1991	LW12	RDX		5.90e+01	UGG
4.0	01-nov-1991	LW12	RDX		5.90e+01	UGG
30.0	02-nov-1991	LW12	RDX		6.50e+01	UGG
30.0	02-nov-1991	LW12	RDX		6.50e+01	UGG
15.0	02-nov-1991	LW12	RDX		8.00e+01	UGG
15.0	02-nov-1991	LW12	RDX		8.00e+01	UGG
20.0	02-nov-1991	LW12	RDX		9.30e+01	UGG
20.0	02-nov-1991	LW12	RDX		9.30e+01	UGG
0.0	01-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
0.0	01-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
2.0	01-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
2.0	01-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
4.0	01-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
4.0	01-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
6.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
6.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG

Site: BORE S048007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
8.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
8.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
10.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
10.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
15.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
15.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
20.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
20.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
25.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
25.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
30.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
30.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
35.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
40.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
45.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
45.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG

Site: BORE S04B008

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	02-nov-1991	00	ALK		5.00e+01	UGG
0.0	02-nov-1991	00	ALK		5.40e+01	UGG
10.0	02-nov-1991	00	ALK		1.94e+02	UGG
0.0	02-nov-1991	00	PH		8.20e+00	
10.0	02-nov-1991	00	PH		8.30e+00	
4.0	02-nov-1991	00	PH		8.40e+00	
10.0	02-nov-1991	00	TOC		8.41e+02	UGG
4.0	02-nov-1991	00	TOC		1.18e+03	UGG
0.0	02-nov-1991	00	TOC		1.93e+03	UGG
0.0	02-nov-1991	JB01	HG	LT	5.00e-02	UGG
4.0	02-nov-1991	JB01	HG	LT	5.00e-02	UGG
10.0	02-nov-1991	JB01	HG	LT	5.00e-02	UGG
0.0	02-nov-1991	JD15	SE	LT	2.50e-01	UGG
4.0	02-nov-1991	JD15	SE	LT	2.50e-01	UGG
10.0	02-nov-1991	JD15	SE	LT	2.50e-01	UGG
10.0	02-nov-1991	JD17	PB		3.65e+00	UGG
4.0	02-nov-1991	JD17	PB		3.71e+00	UGG
0.0	02-nov-1991	JD17	PB		3.82e+00	UGG
0.0	02-nov-1991	JD19	AS		9.70e-01	UGG
4.0	02-nov-1991	JD19	AS		1.18e+00	UGG
10.0	02-nov-1991	JD19	AS		1.26e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	JS16	AG		1.06e+00	UGG
4.0	02-nov-1991	JS16	AG		1.46e+00	UGG
0.0	02-nov-1991	JS16	AG		1.48e+00	UGG
4.0	02-nov-1991	JS16	AL		4.95e+03	UGG
10.0	02-nov-1991	JS16	AL		5.15e+03	UGG
0.0	02-nov-1991	JS16	AL		5.53e+03	UGG
0.0	02-nov-1991	JS16	BA		7.55e+01	UGG
4.0	02-nov-1991	JS16	BA		7.74e+01	UGG
10.0	02-nov-1991	JS16	BA		9.99e+01	UGG
10.0	02-nov-1991	JS16	BE		2.04e+00	UGG
4.0	02-nov-1991	JS16	BE		2.22e+00	UGG
0.0	02-nov-1991	JS16	BE		2.33e+00	UGG
0.0	02-nov-1991	JS16	CA		5.93e+03	UGG
4.0	02-nov-1991	JS16	CA		8.42e+03	UGG
10.0	02-nov-1991	JS16	CA		2.41e+04	UGG
0.0	02-nov-1991	JS16	CD	LT	7.00e-01	UGG
4.0	02-nov-1991	JS16	CD	LT	7.00e-01	UGG
10.0	02-nov-1991	JS16	CD	LT	7.00e-01	UGG
10.0	02-nov-1991	JS16	CO		1.41e+01	UGG
0.0	02-nov-1991	JS16	CO		1.43e+01	UGG
4.0	02-nov-1991	JS16	CO		1.47e+01	UGG
10.0	02-nov-1991	JS16	CR		5.39e+00	UGG
4.0	02-nov-1991	JS16	CR		7.76e+00	UGG
0.0	02-nov-1991	JS16	CR		8.48e+00	UGG
4.0	02-nov-1991	JS16	CU		1.09e+01	UGG
0.0	02-nov-1991	JS16	CU		1.17e+01	UGG
10.0	02-nov-1991	JS16	CU		2.11e+01	UGG
10.0	02-nov-1991	JS16	FE		2.31e+04	UGG
0.0	02-nov-1991	JS16	FE		2.60e+04	UGG
4.0	02-nov-1991	JS16	FE		2.63e+04	UGG
10.0	02-nov-1991	JS16	K		7.47e+02	UGG
4.0	02-nov-1991	JS16	K		7.69e+02	UGG
0.0	02-nov-1991	JS16	K		8.60e+02	UGG
0.0	02-nov-1991	JS16	MG		4.69e+03	UGG
4.0	02-nov-1991	JS16	MG		5.21e+03	UGG
10.0	02-nov-1991	JS16	MG		5.44e+03	UGG
10.0	02-nov-1991	JS16	MN		3.86e+02	UGG
0.0	02-nov-1991	JS16	MN		3.95e+02	UGG
4.0	02-nov-1991	JS16	MN		4.20e+02	UGG
4.0	02-nov-1991	JS16	NA		3.57e+02	UGG
0.0	02-nov-1991	JS16	NA		3.65e+02	UGG
10.0	02-nov-1991	JS16	NA		3.89e+02	UGG
10.0	02-nov-1991	JS16	NI		7.56e+00	UGG
0.0	02-nov-1991	JS16	NI		8.28e+00	UGG
4.0	02-nov-1991	JS16	NI		9.79e+00	UGG
0.0	02-nov-1991	JS16	SB	LT	7.14e+00	UGG
4.0	02-nov-1991	JS16	SB	LT	7.14e+00	UGG
10.0	02-nov-1991	JS16	SB	LT	7.14e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	JS16	TL		2.56e+01	UGG
0.0	02-nov-1991	JS16	TL		3.00e+01	UGG
4.0	02-nov-1991	JS16	TL		3.12e+01	UGG
10.0	02-nov-1991	JS16	V		7.55e+01	UGG
0.0	02-nov-1991	JS16	V		9.02e+01	UGG
4.0	02-nov-1991	JS16	V		9.12e+01	UGG
10.0	02-nov-1991	JS16	ZN		4.37e+01	UGG
0.0	02-nov-1991	JS16	ZN		5.51e+01	UGG
4.0	02-nov-1991	JS16	ZN		5.51e+01	UGG
2.0	02-nov-1991	KF10	NIT		6.18e-01	UGG
4.0	02-nov-1991	KF10	NIT		7.39e-01	UGG
8.0	02-nov-1991	KF10	NIT		1.22e+00	UGG
0.0	02-nov-1991	KF10	NIT		1.51e+00	UGG
50.0	03-nov-1991	KF10	NIT		3.89e+00	UGG
45.0	03-nov-1991	KF10	NIT		1.40e+01	UGG
35.0	02-nov-1991	KF10	NIT		3.00e+01	UGG
40.0	02-nov-1991	KF10	NIT		3.10e+01	UGG
25.0	02-nov-1991	KF10	NIT		3.20e+01	UGG
10.0	02-nov-1991	KF10	NIT		3.40e+01	UGG
30.0	02-nov-1991	KF10	NIT		3.60e+01	UGG
15.0	02-nov-1991	KF10	NIT		3.80e+01	UGG
15.0	02-nov-1991	KF10	NIT		4.40e+01	UGG
20.0	02-nov-1991	KF10	NIT		5.10e+01	UGG
6.0	02-nov-1991	KF10	NIT	LT	6.00e-01	UGG
4.0	02-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
10.0	02-nov-1991	LH10	ABHC	LT	9.07e-03	UGG
4.0	02-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
10.0	02-nov-1991	LH10	AENSLF	LT	6.02e-03	UGG
4.0	02-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
10.0	02-nov-1991	LH10	ALDRN	LT	7.29e-03	UGG
4.0	02-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
10.0	02-nov-1991	LH10	BBHC	LT	2.57e-03	UGG
4.0	02-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
10.0	02-nov-1991	LH10	BENSLF	LT	6.63e-03	UGG
4.0	02-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
10.0	02-nov-1991	LH10	DBHC	LT	5.55e-03	UGG
4.0	02-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
10.0	02-nov-1991	LH10	DLDRN	LT	6.29e-03	UGG
4.0	02-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
10.0	02-nov-1991	LH10	ENDRN	LT	6.57e-03	UGG
4.0	02-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
10.0	02-nov-1991	LH10	ENDRNA	LT	2.40e-02	UGG
4.0	02-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
10.0	02-nov-1991	LH10	ENDRNK	ND	2.40e-02	UGG
4.0	02-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG
10.0	02-nov-1991	LH10	ESFSO4	LT	7.63e-03	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
4.0	02-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
10.0	02-nov-1991	LH10	HPCL	LT	6.18e-03	UGG
4.0	02-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
10.0	02-nov-1991	LH10	HPCLE	LT	6.20e-03	UGG
4.0	02-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
10.0	02-nov-1991	LH10	ISODR	LT	4.61e-03	UGG
4.0	02-nov-1991	LH10	LIN	LT	6.38e-03	UGG
10.0	02-nov-1991	LH10	LIN	LT	6.38e-03	UGG
4.0	02-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
10.0	02-nov-1991	LH10	MEXCLR	LT	7.11e-02	UGG
4.0	02-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
10.0	02-nov-1991	LH10	PPDDD	LT	8.26e-03	UGG
4.0	02-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
10.0	02-nov-1991	LH10	PPDDE	LT	7.65e-03	UGG
4.0	02-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
10.0	02-nov-1991	LH10	PPDDT	LT	7.07e-03	UGG
4.0	02-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
10.0	02-nov-1991	LH10	TXPHEN	LT	4.44e-01	UGG
4.0	02-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
10.0	02-nov-1991	LH16	PCB016	LT	6.66e-02	UGG
4.0	02-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB221	ND	8.20e-02	UGG
4.0	02-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB232	ND	8.20e-02	UGG
4.0	02-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB242	ND	8.20e-02	UGG
4.0	02-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB248	ND	8.20e-02	UGG
4.0	02-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
10.0	02-nov-1991	LH16	PCB254	ND	8.20e-02	UGG
4.0	02-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
10.0	02-nov-1991	LH16	PCB260	LT	8.04e-02	UGG
0.0	02-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
4.0	02-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
10.0	02-nov-1991	LM18	124TCB	LT	4.00e-02	UGG
0.0	02-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
4.0	02-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
10.0	02-nov-1991	LM18	12DCLB	LT	1.10e-01	UGG
0.0	02-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
4.0	02-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
10.0	02-nov-1991	LM18	12DPH	ND	1.40e-01	UGG
0.0	02-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
4.0	02-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
10.0	02-nov-1991	LM18	13DCLB	LT	1.30e-01	UGG
0.0	02-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
4.0	02-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LM18	14DCLB	LT	9.80e-02	UGG
0.0	02-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
4.0	02-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
10.0	02-nov-1991	LM18	245TCP	LT	1.00e-01	UGG
0.0	02-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
4.0	02-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
10.0	02-nov-1991	LM18	246TCP	LT	1.70e-01	UGG
0.0	02-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
4.0	02-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
10.0	02-nov-1991	LM18	24DCLP	LT	1.80e-01	UGG
0.0	02-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
4.0	02-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
10.0	02-nov-1991	LM18	24DMPN	LT	6.90e-01	UGG
0.0	02-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
4.0	02-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
10.0	02-nov-1991	LM18	24DNP	LT	1.20e+00	UGG
0.0	02-nov-1991	LM18	24DNT		1.66e-01	UGG
10.0	02-nov-1991	LM18	24DNT		1.35e+00	UGG
4.0	02-nov-1991	LM18	24DNT	LT	1.40e-01	UGG
0.0	02-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
4.0	02-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
10.0	02-nov-1991	LM18	26DNT	LT	8.50e-02	UGG
0.0	02-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
4.0	02-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
10.0	02-nov-1991	LM18	2CLP	LT	6.00e-02	UGG
0.0	02-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
4.0	02-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
10.0	02-nov-1991	LM18	2CNAP	LT	3.60e-02	UGG
0.0	02-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
4.0	02-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
10.0	02-nov-1991	LM18	2MNAP	LT	4.90e-02	UGG
0.0	02-nov-1991	LM18	2MP	LT	2.90e-02	UGG
4.0	02-nov-1991	LM18	2MP	LT	2.90e-02	UGG
10.0	02-nov-1991	LM18	2MP	LT	2.90e-02	UGG
0.0	02-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
4.0	02-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
10.0	02-nov-1991	LM18	2NANIL	LT	6.20e-02	UGG
0.0	02-nov-1991	LM18	2NP	LT	1.40e-01	UGG
4.0	02-nov-1991	LM18	2NP	LT	1.40e-01	UGG
10.0	02-nov-1991	LM18	2NP	LT	1.40e-01	UGG
0.0	02-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
4.0	02-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
10.0	02-nov-1991	LM18	33DCBD	LT	6.30e+00	UGG
0.0	02-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
4.0	02-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
10.0	02-nov-1991	LM18	3NANIL	LT	4.50e-01	UGG
0.0	02-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
4.0	02-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LM18	46DN2C	LT	5.50e-01	UGG
0.0	02-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	4BRPPE	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
4.0	02-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
10.0	02-nov-1991	LM18	4CANIL	LT	8.10e-01	UGG
0.0	02-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
4.0	02-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
10.0	02-nov-1991	LM18	4CL3C	LT	9.50e-02	UGG
0.0	02-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	4CLPPE	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	4MP	LT	2.40e-01	UGG
4.0	02-nov-1991	LM18	4MP	LT	2.40e-01	UGG
10.0	02-nov-1991	LM18	4MP	LT	2.40e-01	UGG
0.0	02-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
4.0	02-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
10.0	02-nov-1991	LM18	4NANIL	LT	4.10e-01	UGG
0.0	02-nov-1991	LM18	4NP	LT	1.40e+00	UGG
4.0	02-nov-1991	LM18	4NP	LT	1.40e+00	UGG
10.0	02-nov-1991	LM18	4NP	LT	1.40e+00	UGG
0.0	02-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
4.0	02-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	ABHC	ND	2.70e-01	UGG
0.0	02-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
4.0	02-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	ACLDAN	ND	3.30e-01	UGG
0.0	02-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
4.0	02-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
10.0	02-nov-1991	LM18	AENSLF	ND	6.20e-01	UGG
0.0	02-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
4.0	02-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	ALDRN	ND	3.30e-01	UGG
0.0	02-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
4.0	02-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
10.0	02-nov-1991	LM18	ANAPNE	LT	3.60e-02	UGG
0.0	02-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	ANAPYL	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	ANTRC	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
4.0	02-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
10.0	02-nov-1991	LM18	B2CEXM	LT	5.90e-02	UGG
0.0	02-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
4.0	02-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LM18	B2CIPE	LT	2.00e-01	UGG
0.0	02-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	B2CLEE	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
4.0	02-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
10.0	02-nov-1991	LM18	B2EHP	LT	6.20e-01	UGG
0.0	02-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
4.0	02-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
10.0	02-nov-1991	LM18	BAANTR	LT	1.70e-01	UGG
0.0	02-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
4.0	02-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
10.0	02-nov-1991	LM18	BAPYR	LT	2.50e-01	UGG
0.0	02-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
4.0	02-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
10.0	02-nov-1991	LM18	BBFANT	LT	2.10e-01	UGG
0.0	02-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
4.0	02-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	BBHC	ND	2.70e-01	UGG
0.0	02-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
4.0	02-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
10.0	02-nov-1991	LM18	BBZP	LT	1.70e-01	UGG
0.0	02-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
4.0	02-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
10.0	02-nov-1991	LM18	BENSLF	ND	6.20e-01	UGG
0.0	02-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
4.0	02-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
10.0	02-nov-1991	LM18	BENZID	ND	8.50e-01	UGG
0.0	02-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
4.0	02-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
10.0	02-nov-1991	LM18	BENZOA	ND	6.10e+00	UGG
0.0	02-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
4.0	02-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
10.0	02-nov-1991	LM18	BGHIPY	LT	2.50e-01	UGG
0.0	02-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
4.0	02-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
10.0	02-nov-1991	LM18	BKFANT	LT	6.60e-02	UGG
0.0	02-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
4.0	02-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
10.0	02-nov-1991	LM18	BZALC	LT	1.90e-01	UGG
0.0	02-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
4.0	02-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
10.0	02-nov-1991	LM18	CHRY	LT	1.20e-01	UGG
0.0	02-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	CL6BZ	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
4.0	02-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S048008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LM18	CL6CP	LT	6.20e+00	UGG
0.0	02-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
4.0	02-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
10.0	02-nov-1991	LM18	CL6ET	LT	1.50e-01	UGG
0.0	02-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
4.0	02-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
10.0	02-nov-1991	LM18	DBAHA	LT	2.10e-01	UGG
0.0	02-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
4.0	02-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	DBHC	ND	2.70e-01	UGG
0.0	02-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
4.0	02-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
10.0	02-nov-1991	LM18	DBZFUR	LT	3.50e-02	UGG
0.0	02-nov-1991	LM18	DEP	LT	2.40e-01	UGG
4.0	02-nov-1991	LM18	DEP	LT	2.40e-01	UGG
10.0	02-nov-1991	LM18	DEP	LT	2.40e-01	UGG
0.0	02-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
4.0	02-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
10.0	02-nov-1991	LM18	DLDRN	ND	3.10e-01	UGG
0.0	02-nov-1991	LM18	DMP	LT	1.70e-01	UGG
4.0	02-nov-1991	LM18	DMP	LT	1.70e-01	UGG
10.0	02-nov-1991	LM18	DMP	LT	1.70e-01	UGG
0.0	02-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
4.0	02-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
10.0	02-nov-1991	LM18	DNBP	LT	6.10e-02	UGG
0.0	02-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
4.0	02-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
10.0	02-nov-1991	LM18	DNOP	LT	1.90e-01	UGG
0.0	02-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
4.0	02-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
10.0	02-nov-1991	LM18	ENDRN	ND	4.50e-01	UGG
0.0	02-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
4.0	02-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
10.0	02-nov-1991	LM18	ENDRNA	ND	5.30e-01	UGG
0.0	02-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
4.0	02-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
10.0	02-nov-1991	LM18	ENDRNK	ND	5.30e-01	UGG
0.0	02-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
4.0	02-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
10.0	02-nov-1991	LM18	ESFSO4	ND	6.20e-01	UGG
0.0	02-nov-1991	LM18	FANT	LT	6.80e-02	UGG
4.0	02-nov-1991	LM18	FANT	LT	6.80e-02	UGG
10.0	02-nov-1991	LM18	FANT	LT	6.80e-02	UGG
0.0	02-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	FLRENE	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
4.0	02-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LM18	GCLDAN	ND	3.30e-01	UGG
0.0	02-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
4.0	02-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
10.0	02-nov-1991	LM18	HCBD	LT	2.30e-01	UGG
0.0	02-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
4.0	02-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
10.0	02-nov-1991	LM18	HPCL	ND	1.30e-01	UGG
0.0	02-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
4.0	02-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	HPCLE	ND	3.30e-01	UGG
0.0	02-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
4.0	02-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
10.0	02-nov-1991	LM18	ICDPYR	LT	2.90e-01	UGG
0.0	02-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	ISOPHR	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	LIN	ND	2.70e-01	UGG
4.0	02-nov-1991	LM18	LIN	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	LIN	ND	2.70e-01	UGG
0.0	02-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
4.0	02-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
10.0	02-nov-1991	LM18	MEXCLR	ND	3.30e-01	UGG
0.0	02-nov-1991	LM18	NAP	LT	3.70e-02	UGG
4.0	02-nov-1991	LM18	NAP	LT	3.70e-02	UGG
10.0	02-nov-1991	LM18	NAP	LT	3.70e-02	UGG
0.0	02-nov-1991	LM18	NB	LT	4.50e-02	UGG
4.0	02-nov-1991	LM18	NB	LT	4.50e-02	UGG
10.0	02-nov-1991	LM18	NB	LT	4.50e-02	UGG
0.0	02-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
4.0	02-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
10.0	02-nov-1991	LM18	NNDMEA	ND	1.40e-01	UGG
0.0	02-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
4.0	02-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
10.0	02-nov-1991	LM18	NNDNPA	LT	2.00e-01	UGG
0.0	02-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
4.0	02-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
10.0	02-nov-1991	LM18	NNDPA	LT	1.90e-01	UGG
0.0	02-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
4.0	02-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
10.0	02-nov-1991	LM18	PCB016	ND	1.40e+00	UGG
0.0	02-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
4.0	02-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
10.0	02-nov-1991	LM18	PCB221	ND	1.40e+00	UGG
0.0	02-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
4.0	02-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
10.0	02-nov-1991	LM18	PCB232	ND	1.40e+00	UGG
0.0	02-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
4.0	02-nov-1991	LM18	PCB242	ND	1.40e+00	UGG

Site: BORE S048008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LM18	PCB242	ND	1.40e+00	UGG
0.0	02-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
4.0	02-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
10.0	02-nov-1991	LM18	PCB248	ND	2.00e+00	UGG
0.0	02-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
4.0	02-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
10.0	02-nov-1991	LM18	PCB254	ND	2.30e+00	UGG
0.0	02-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
4.0	02-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
10.0	02-nov-1991	LM18	PCB260	ND	2.60e+00	UGG
0.0	02-nov-1991	LM18	PCP	LT	1.30e+00	UGG
4.0	02-nov-1991	LM18	PCP	LT	1.30e+00	UGG
10.0	02-nov-1991	LM18	PCP	LT	1.30e+00	UGG
0.0	02-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	PHANTR	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
4.0	02-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
10.0	02-nov-1991	LM18	PHENOL	LT	1.10e-01	UGG
0.0	02-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
4.0	02-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
10.0	02-nov-1991	LM18	PPDDD	ND	2.70e-01	UGG
0.0	02-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
4.0	02-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
10.0	02-nov-1991	LM18	PPDDE	ND	3.10e-01	UGG
0.0	02-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
4.0	02-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
10.0	02-nov-1991	LM18	PPDDT	ND	3.10e-01	UGG
0.0	02-nov-1991	LM18	PYR	LT	3.30e-02	UGG
4.0	02-nov-1991	LM18	PYR	LT	3.30e-02	UGG
10.0	02-nov-1991	LM18	PYR	LT	3.30e-02	UGG
0.0	02-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
4.0	02-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
10.0	02-nov-1991	LM18	TXPHEN	ND	2.60e+00	UGG
0.0	02-nov-1991	LM18	UNK517 +		3.11e-01	UGG
10.0	02-nov-1991	LM18	UNK595 -		6.30e+00	UGG
4.0	02-nov-1991	LM18	UNK595 -		2.11e+01	UGG
0.0	02-nov-1991	LM18	UNK596 -		2.07e+02	UGG
4.0	02-nov-1991	LM18	UNK632		5.29e-01	UGG
0.0	02-nov-1991	LM18	UNK645		4.15e-01	UGG
0.0	02-nov-1991	LM18	UNK659		1.04e+00	UGG
0.0	02-nov-1991	LM18	UNK669		3.11e+00	UGG
0.0	02-nov-1991	LM18	UNK681		3.11e+00	UGG
0.0	02-nov-1991	LM18	UNK695		3.11e+00	UGG
0.0	02-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
4.0	02-nov-1991	LM19	111TCE	LT	4.40e-03	UGG
10.0	02-nov-1991	LM19	111TCE	LT	4.40e-03	UGG

+Chloroform
-Trinitrotoluene

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	02-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
4.0	02-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
10.0	02-nov-1991	LM19	112TCE	LT	5.40e-03	UGG
0.0	02-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
4.0	02-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
10.0	02-nov-1991	LM19	11DCE	LT	3.90e-03	UGG
0.0	02-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
4.0	02-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
10.0	02-nov-1991	LM19	11DCLE	LT	2.30e-03	UGG
0.0	02-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
4.0	02-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
10.0	02-nov-1991	LM19	12DCE	LT	3.00e-03	UGG
0.0	02-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
4.0	02-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
10.0	02-nov-1991	LM19	12DCLE	LT	1.70e-03	UGG
0.0	02-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
4.0	02-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
10.0	02-nov-1991	LM19	12DCLP	LT	2.90e-03	UGG
0.0	02-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
4.0	02-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
10.0	02-nov-1991	LM19	2CLEVE	ND	1.00e-02	UGG
0.0	02-nov-1991	LM19	ACET	LT	1.70e-02	UGG
4.0	02-nov-1991	LM19	ACET	LT	1.70e-02	UGG
10.0	02-nov-1991	LM19	ACET	LT	1.70e-02	UGG
0.0	02-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
4.0	02-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
10.0	02-nov-1991	LM19	ACROLN	ND	1.00e-01	UGG
0.0	02-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
4.0	02-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
10.0	02-nov-1991	LM19	ACRYLO	ND	1.00e-01	UGG
0.0	02-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
4.0	02-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
10.0	02-nov-1991	LM19	BRDCLM	LT	2.90e-03	UGG
0.0	02-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
4.0	02-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
10.0	02-nov-1991	LM19	C13DCP	LT	3.20e-03	UGG
0.0	02-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
4.0	02-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
10.0	02-nov-1991	LM19	C2AVE	LT	3.20e-03	UGG
0.0	02-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
4.0	02-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
10.0	02-nov-1991	LM19	C2H3CL	LT	6.20e-03	UGG
0.0	02-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
4.0	02-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
10.0	02-nov-1991	LM19	C2H5CL	LT	1.20e-02	UGG
0.0	02-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
4.0	02-nov-1991	LM19	C6H6	LT	1.50e-03	UGG
10.0	02-nov-1991	LM19	C6H6	LT	1.50e-03	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	02-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
4.0	02-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
10.0	02-nov-1991	LM19	CCL3F	LT	5.90e-03	UGG
0.0	02-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
4.0	02-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
10.0	02-nov-1991	LM19	CCL4	LT	7.00e-03	UGG
0.0	02-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
4.0	02-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
10.0	02-nov-1991	LM19	CH2CL2	LT	1.20e-02	UGG
0.0	02-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
4.0	02-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
10.0	02-nov-1991	LM19	CH3BR	LT	5.70e-03	UGG
0.0	02-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
4.0	02-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
10.0	02-nov-1991	LM19	CH3CL	LT	8.80e-03	UGG
0.0	02-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
4.0	02-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
10.0	02-nov-1991	LM19	CHBR3	LT	6.90e-03	UGG
0.0	02-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
4.0	02-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
10.0	02-nov-1991	LM19	CHCL3	LT	8.70e-04	UGG
0.0	02-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
4.0	02-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
10.0	02-nov-1991	LM19	CL2BZ	ND	1.00e-01	UGG
0.0	02-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
4.0	02-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
10.0	02-nov-1991	LM19	CLC6H5	LT	8.60e-04	UGG
0.0	02-nov-1991	LM19	CS2	LT	4.40e-03	UGG
4.0	02-nov-1991	LM19	CS2	LT	4.40e-03	UGG
10.0	02-nov-1991	LM19	CS2	LT	4.40e-03	UGG
0.0	02-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
4.0	02-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
10.0	02-nov-1991	LM19	DBRCLM	LT	3.10e-03	UGG
0.0	02-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
4.0	02-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
10.0	02-nov-1991	LM19	ETC6H5	LT	1.70e-03	UGG
0.0	02-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
4.0	02-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
10.0	02-nov-1991	LM19	MEC6H5	LT	7.80e-04	UGG
0.0	02-nov-1991	LM19	MEK	LT	7.00e-02	UGG
4.0	02-nov-1991	LM19	MEK	LT	7.00e-02	UGG
10.0	02-nov-1991	LM19	MEK	LT	7.00e-02	UGG
0.0	02-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
4.0	02-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
10.0	02-nov-1991	LM19	MIBK	LT	2.70e-02	UGG
0.0	02-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
4.0	02-nov-1991	LM19	MNBK	LT	3.20e-02	UGG
10.0	02-nov-1991	LM19	MNBK	LT	3.20e-02	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	02-nov-1991	LM19	STYR	LT	2.60e-03	UGG
4.0	02-nov-1991	LM19	STYR	LT	2.60e-03	UGG
10.0	02-nov-1991	LM19	STYR	LT	2.60e-03	UGG
0.0	02-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
4.0	02-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
10.0	02-nov-1991	LM19	T13DCP	LT	2.80e-03	UGG
0.0	02-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
4.0	02-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
10.0	02-nov-1991	LM19	TCLEA	LT	2.40e-03	UGG
0.0	02-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
4.0	02-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
10.0	02-nov-1991	LM19	TCLEE	LT	8.10e-04	UGG
0.0	02-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
4.0	02-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
10.0	02-nov-1991	LM19	TRCLE	LT	2.80e-03	UGG
0.0	02-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
4.0	02-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
10.0	02-nov-1991	LM19	XYLEN	LT	1.50e-03	UGG
2.0	02-nov-1991	LW12	135TNB		8.35e+00	UGG
8.0	02-nov-1991	LW12	135TNB		9.29e+00	UGG
10.0	02-nov-1991	LW12	135TNB		1.30e+01	UGG
4.0	02-nov-1991	LW12	135TNB		1.37e+01	UGG
6.0	02-nov-1991	LW12	135TNB		1.53e+01	UGG
15.0	02-nov-1991	LW12	135TNB		1.78e+01	UGG
15.0	02-nov-1991	LW12	135TNB		1.79e+01	UGG
50.0	03-nov-1991	LW12	135TNB		1.90e+01	UGG
0.0	02-nov-1991	LW12	135TNB		2.00e+01	UGG
30.0	02-nov-1991	LW12	135TNB		2.17e+01	UGG
20.0	02-nov-1991	LW12	135TNB		2.70e+01	UGG
40.0	02-nov-1991	LW12	135TNB		3.50e+01	UGG
45.0	03-nov-1991	LW12	135TNB		3.60e+01	UGG
25.0	02-nov-1991	LW12	135TNB		4.00e+01	UGG
35.0	02-nov-1991	LW12	135TNB		4.00e+01	UGG
0.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
2.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
4.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
6.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
8.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
10.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
15.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
15.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
20.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
25.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
30.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
35.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
40.0	02-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
45.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
50.0	03-nov-1991	LW12	13DNB	LT	4.96e-01	UGG
8.0	02-nov-1991	LW12	246TNT		6.12e-01	UGG
6.0	02-nov-1991	LW12	246TNT		1.99e+00	UGG
15.0	02-nov-1991	LW12	246TNT		7.17e+00	UGG
30.0	02-nov-1991	LW12	246TNT		7.68e+00	UGG
15.0	02-nov-1991	LW12	246TNT		7.85e+00	UGG
10.0	02-nov-1991	LW12	246TNT		8.03e+00	UGG
20.0	02-nov-1991	LW12	246TNT		1.14e+01	UGG
2.0	02-nov-1991	LW12	246TNT		1.39e+01	UGG
50.0	03-nov-1991	LW12	246TNT		1.51e+01	UGG
4.0	02-nov-1991	LW12	246TNT		1.97e+01	UGG
45.0	03-nov-1991	LW12	246TNT		1.97e+01	UGG
25.0	02-nov-1991	LW12	246TNT		2.50e+01	UGG
35.0	02-nov-1991	LW12	246TNT		2.90e+01	UGG
40.0	02-nov-1991	LW12	246TNT		3.80e+01	UGG
0.0	02-nov-1991	LW12	246TNT		7.40e+02	UGG
10.0	02-nov-1991	LW12	24DNT		2.18e+00	UGG
50.0	03-nov-1991	LW12	24DNT		2.29e+00	UGG
15.0	02-nov-1991	LW12	24DNT		2.51e+00	UGG
15.0	02-nov-1991	LW12	24DNT		2.54e+00	UGG
30.0	02-nov-1991	LW12	24DNT		2.62e+00	UGG
45.0	03-nov-1991	LW12	24DNT		3.37e+00	UGG
35.0	02-nov-1991	LW12	24DNT		3.75e+00	UGG
20.0	02-nov-1991	LW12	24DNT		4.30e+00	UGG
40.0	02-nov-1991	LW12	24DNT		4.41e+00	UGG
25.0	02-nov-1991	LW12	24DNT		6.90e+00	UGG
0.0	02-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
2.0	02-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
4.0	02-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
6.0	02-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
8.0	02-nov-1991	LW12	24DNT	LT	4.24e-01	UGG
0.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
2.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
4.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
6.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
8.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
10.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
15.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
15.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
20.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
25.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
30.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
35.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
40.0	02-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
45.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
50.0	03-nov-1991	LW12	26DNT	LT	5.24e-01	UGG
10.0	02-nov-1991	LW12	HMX		1.60e+00	UGG
15.0	02-nov-1991	LW12	HMX		1.84e+00	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
15.0	02-nov-1991	LW12	HMX		2.05e+00	UGG
30.0	02-nov-1991	LW12	HMX		2.20e+00	UGG
20.0	02-nov-1991	LW12	HMX		2.84e+00	UGG
35.0	02-nov-1991	LW12	HMX		6.04e+00	UGG
25.0	02-nov-1991	LW12	HMX		6.56e+00	UGG
50.0	03-nov-1991	LW12	HMX		7.93e+00	UGG
40.0	02-nov-1991	LW12	HMX		9.37e+00	UGG
0.0	02-nov-1991	LW12	HMX		9.83e+00	UGG
45.0	03-nov-1991	LW12	HMX		1.56e+01	UGG
2.0	02-nov-1991	LW12	HMX	LT	6.66e-01	UGG
4.0	02-nov-1991	LW12	HMX	LT	6.66e-01	UGG
6.0	02-nov-1991	LW12	HMX	LT	6.66e-01	UGG
8.0	02-nov-1991	LW12	HMX	LT	6.66e-01	UGG
0.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
2.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
4.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
6.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
8.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
10.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
15.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
15.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
20.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
25.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
30.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
35.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
40.0	02-nov-1991	LW12	NB	LT	2.41e+00	UGG
45.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
50.0	03-nov-1991	LW12	NB	LT	2.41e+00	UGG
6.0	02-nov-1991	LW12	RDX		1.67e+00	UGG
2.0	02-nov-1991	LW12	RDX		1.73e+00	UGG
10.0	02-nov-1991	LW12	RDX		2.13e+00	UGG
45.0	03-nov-1991	LW12	RDX		3.91e+00	UGG
30.0	02-nov-1991	LW12	RDX		7.26e+00	UGG
15.0	02-nov-1991	LW12	RDX		1.09e+01	UGG
15.0	02-nov-1991	LW12	RDX		1.11e+01	UGG
35.0	02-nov-1991	LW12	RDX		1.14e+01	UGG
0.0	02-nov-1991	LW12	RDX		1.34e+01	UGG
20.0	02-nov-1991	LW12	RDX		1.52e+01	UGG
40.0	02-nov-1991	LW12	RDX		2.31e+01	UGG
25.0	02-nov-1991	LW12	RDX		2.90e+01	UGG
4.0	02-nov-1991	LW12	RDX	LT	5.87e-01	UGG
8.0	02-nov-1991	LW12	RDX	LT	5.87e-01	UGG
50.0	03-nov-1991	LW12	RDX	LT	5.87e-01	UGG
0.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
2.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
4.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
6.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
8.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG

Analytical Results for Chemical Soil
From: 31-oct-91 To: 19-mar-92

Site: BORE S04B008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
10.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
15.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
15.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
20.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
25.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
30.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
35.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
40.0	02-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
45.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG
50.0	03-nov-1991	LW12	TETRYL	LT	7.31e-01	UGG

Report completed normally.

$

Appendix D
Concentration of Contaminants vs. Depth in Soils

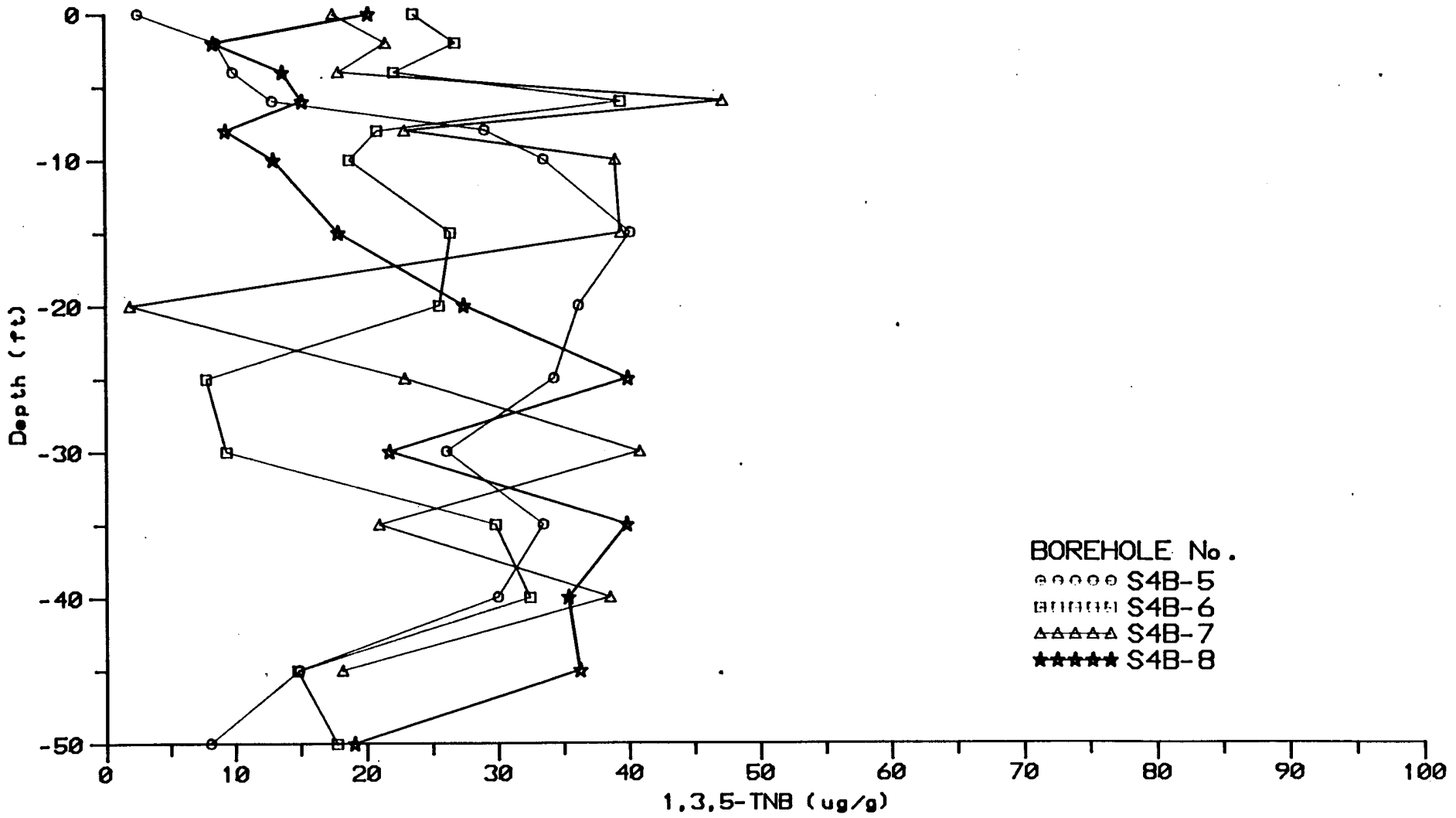


Figure D-1 Depth vs Concentration of 1,3,5-TNB in Soil Explosive Washout Lagoons

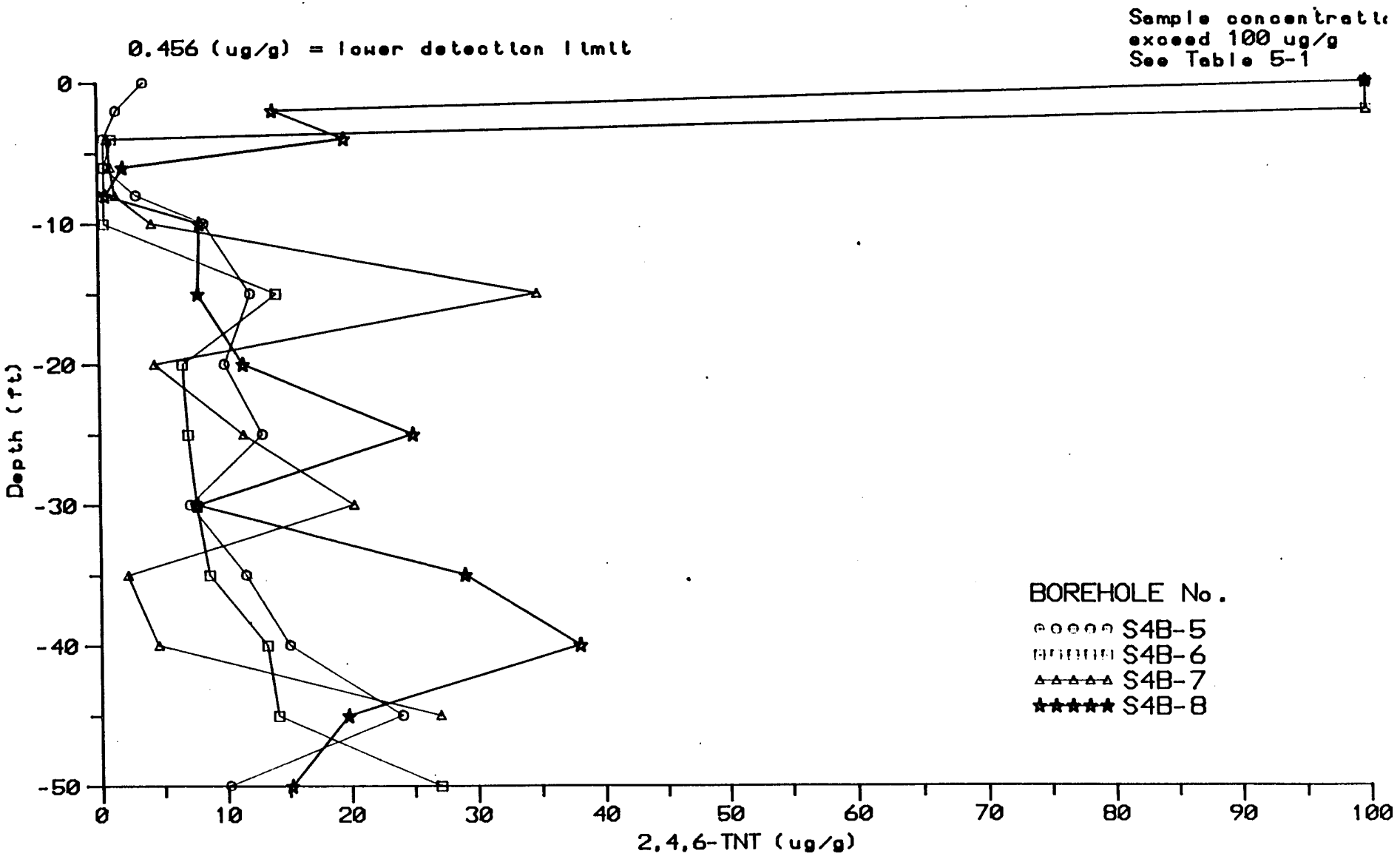


Figure D-2 Depth vs Concentration of 2,4,6-TNT in Soil Explosive Washout Lagoons

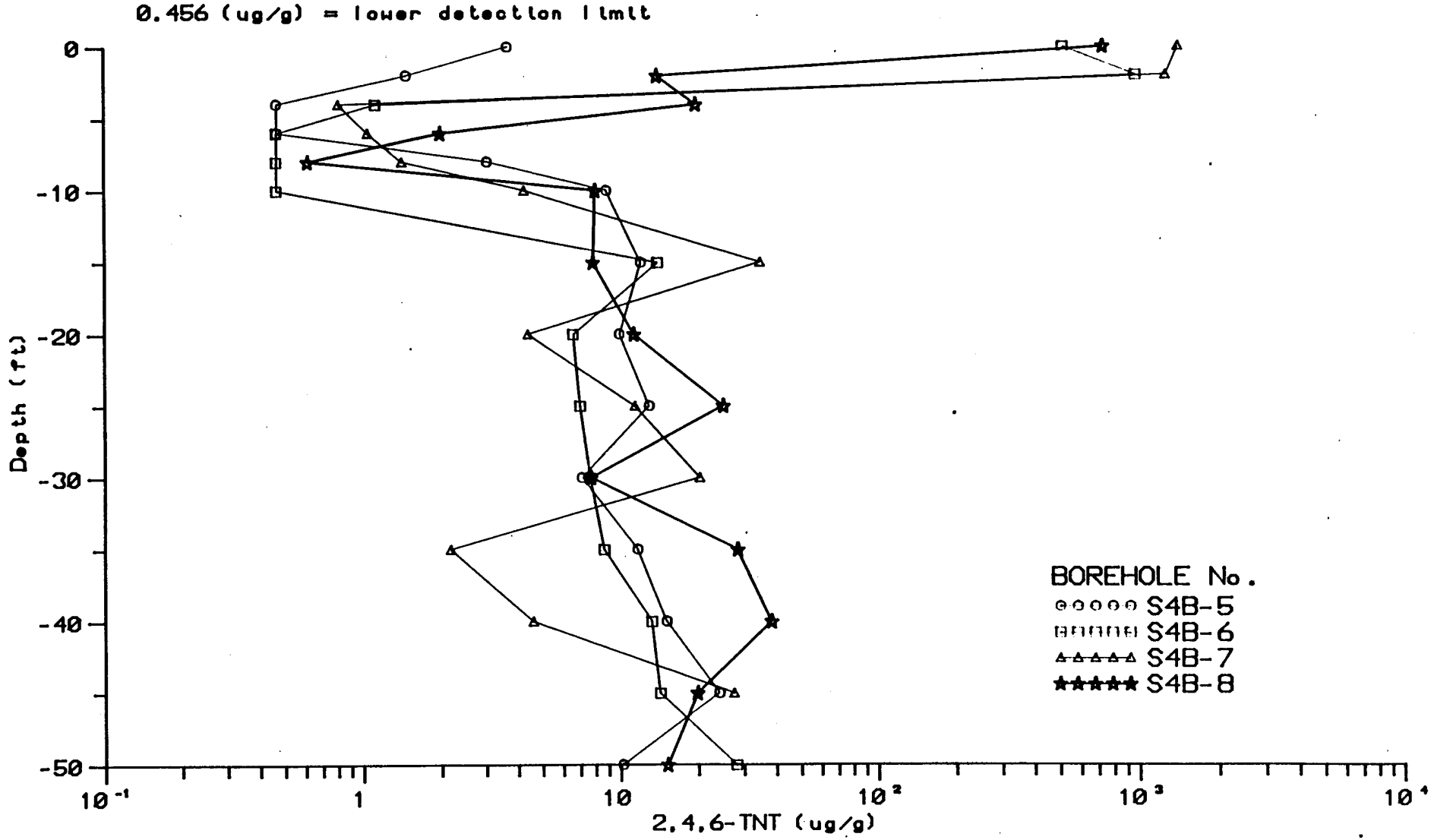


Figure D-3 Depth vs Concentration of 2,4,6-TNT in Soil Explosive Washout Lagoons (log scale)

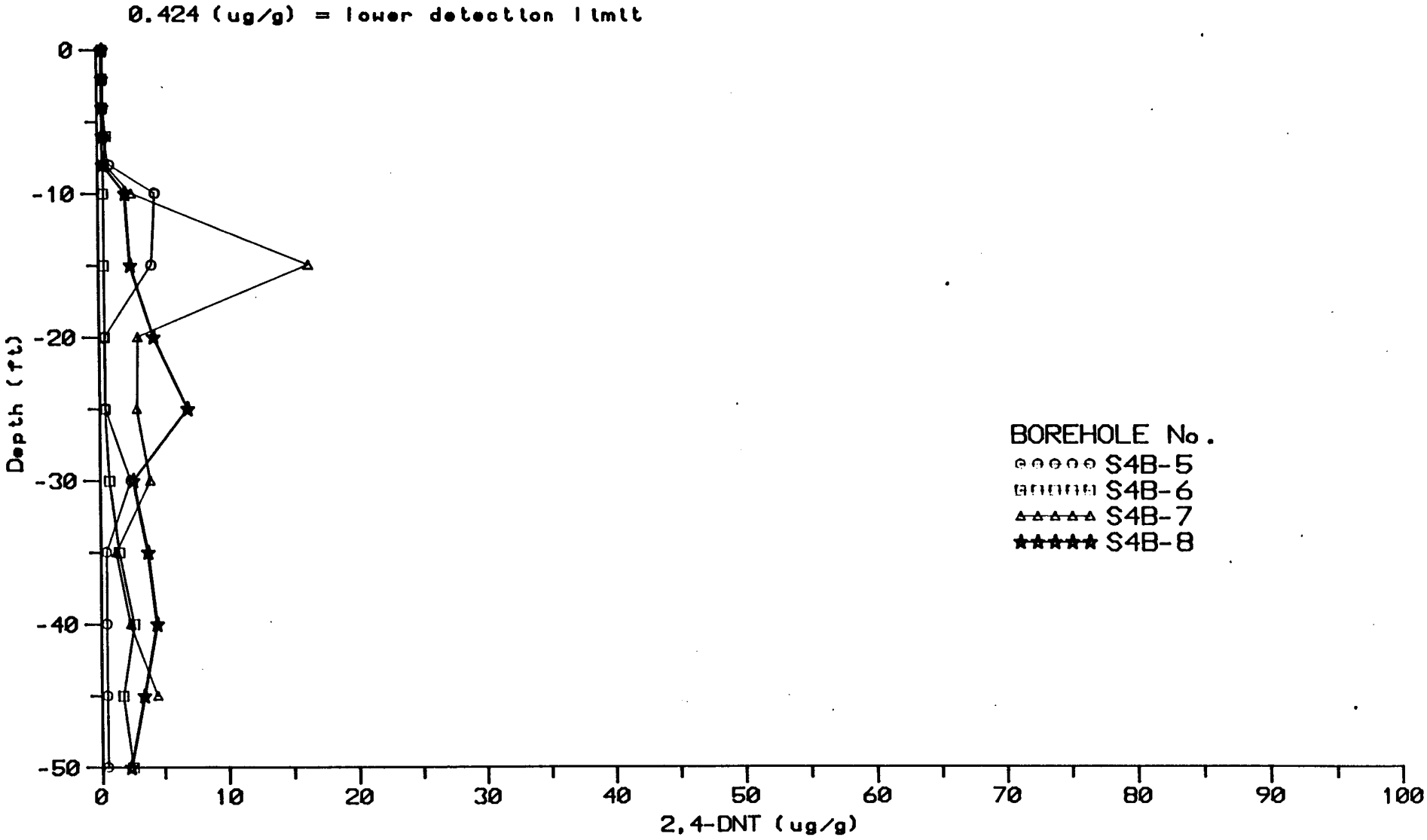


Figure D-4 Depth vs Concentration of 2,4-DNT in Soil-Explosive Washout Lagoons

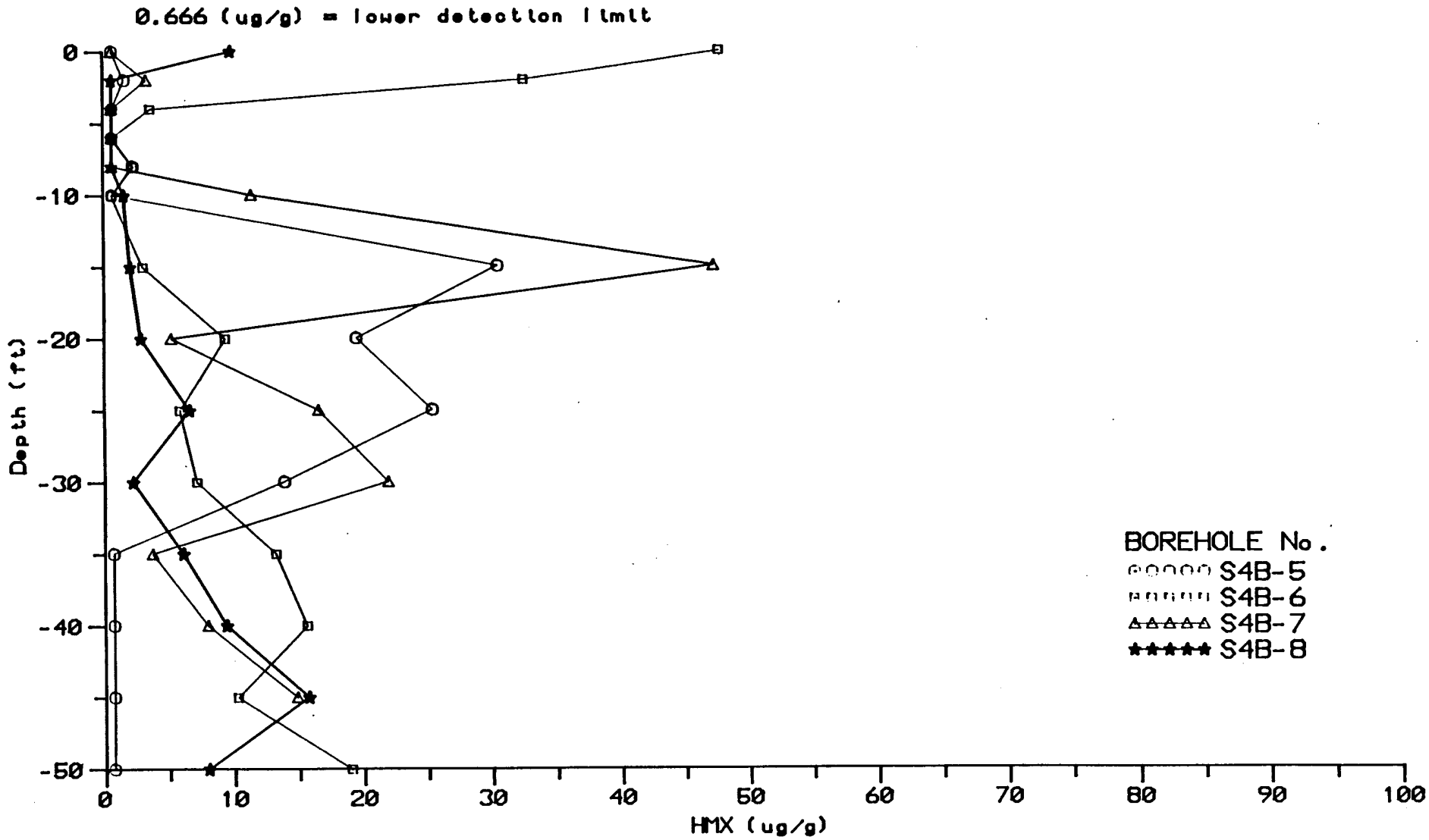


Figure D-5 Depth vs Concentration of HMX in Soil - Explosive Washout Lagoons

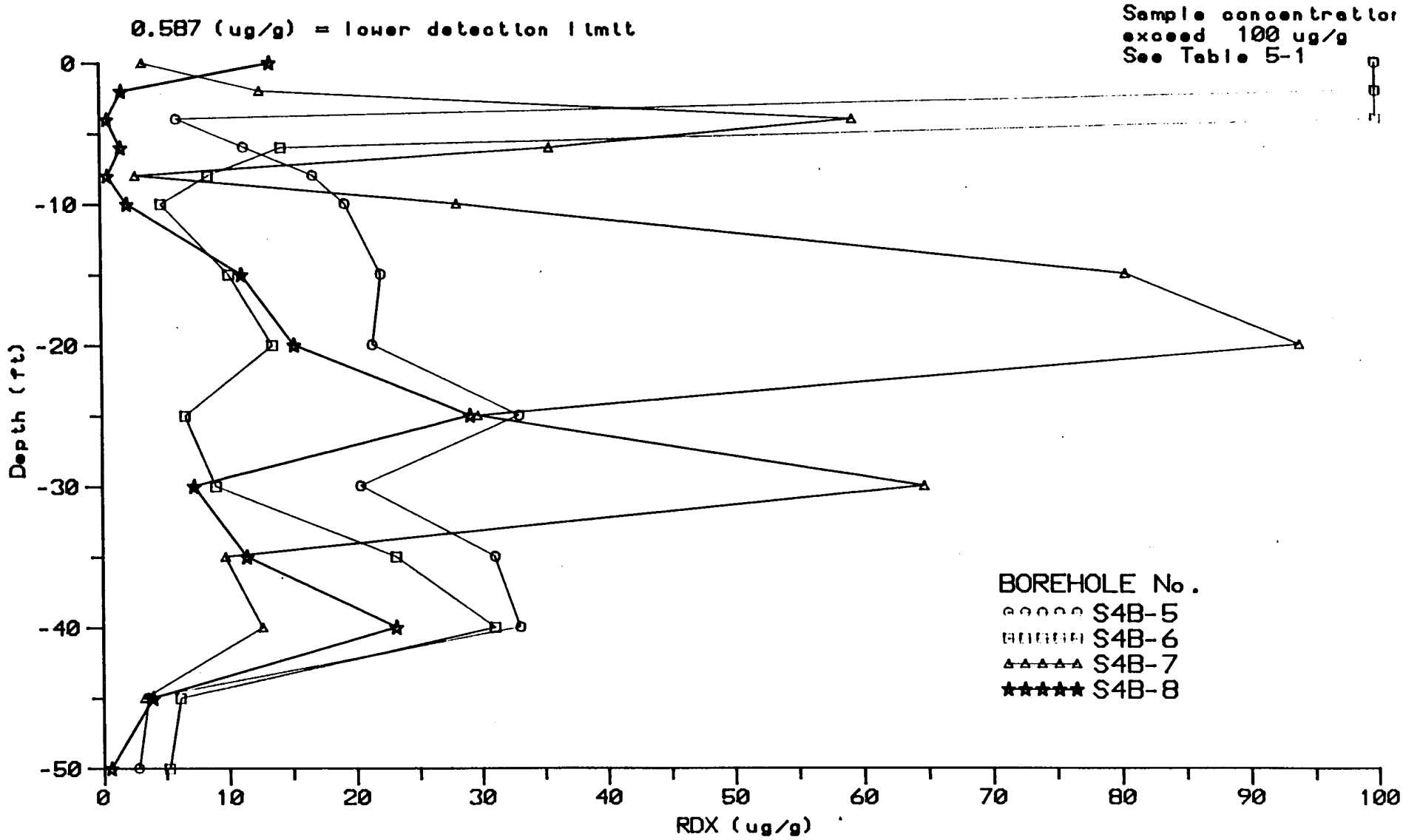


Figure D-6 Depth vs Concentration of RDX in Soil-
Explosive Washout Lagoons

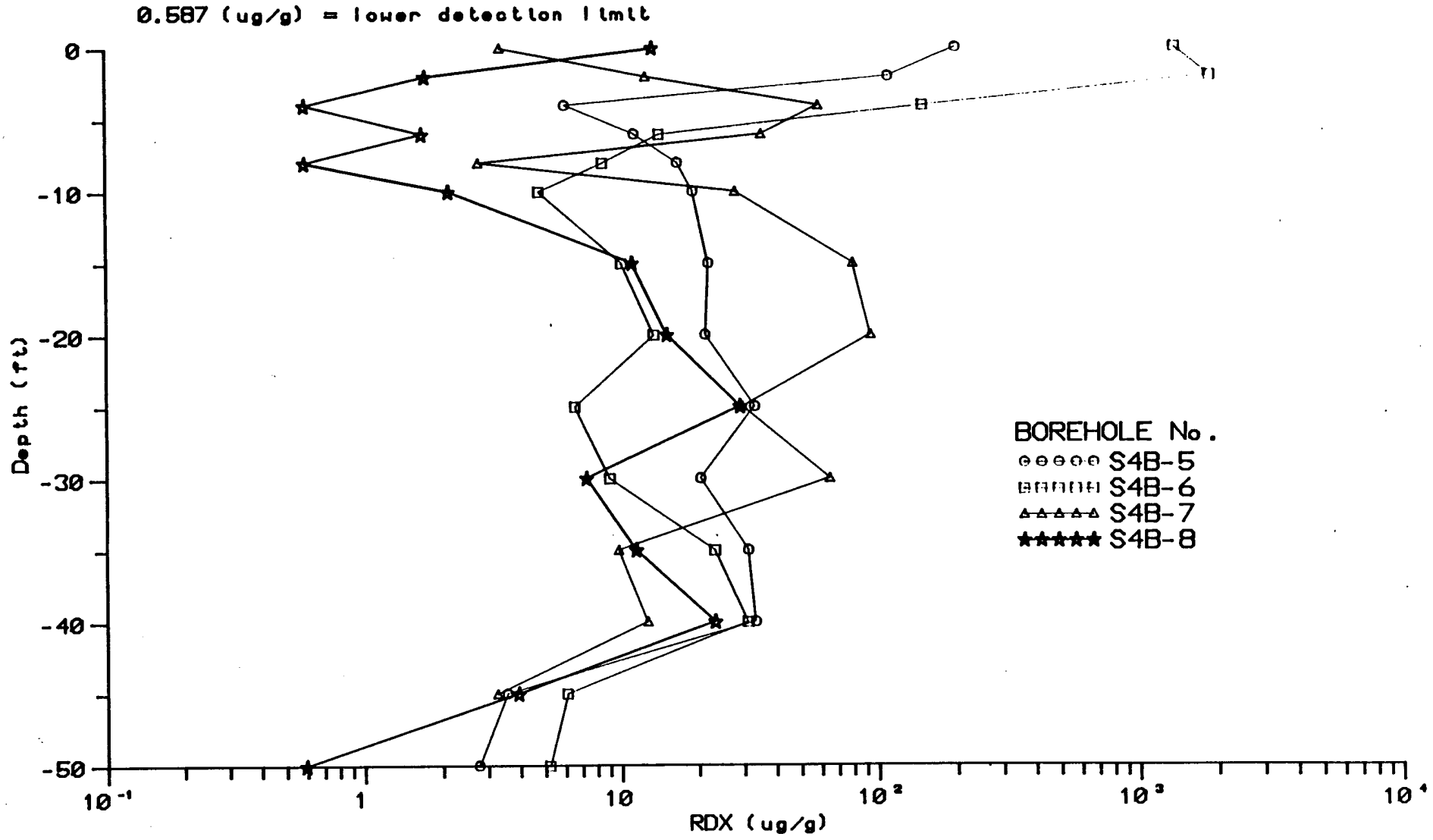


Figure D–7 Depth vs Concentration of RDX in Soil– Explosive Washout Lagoons (log scale)

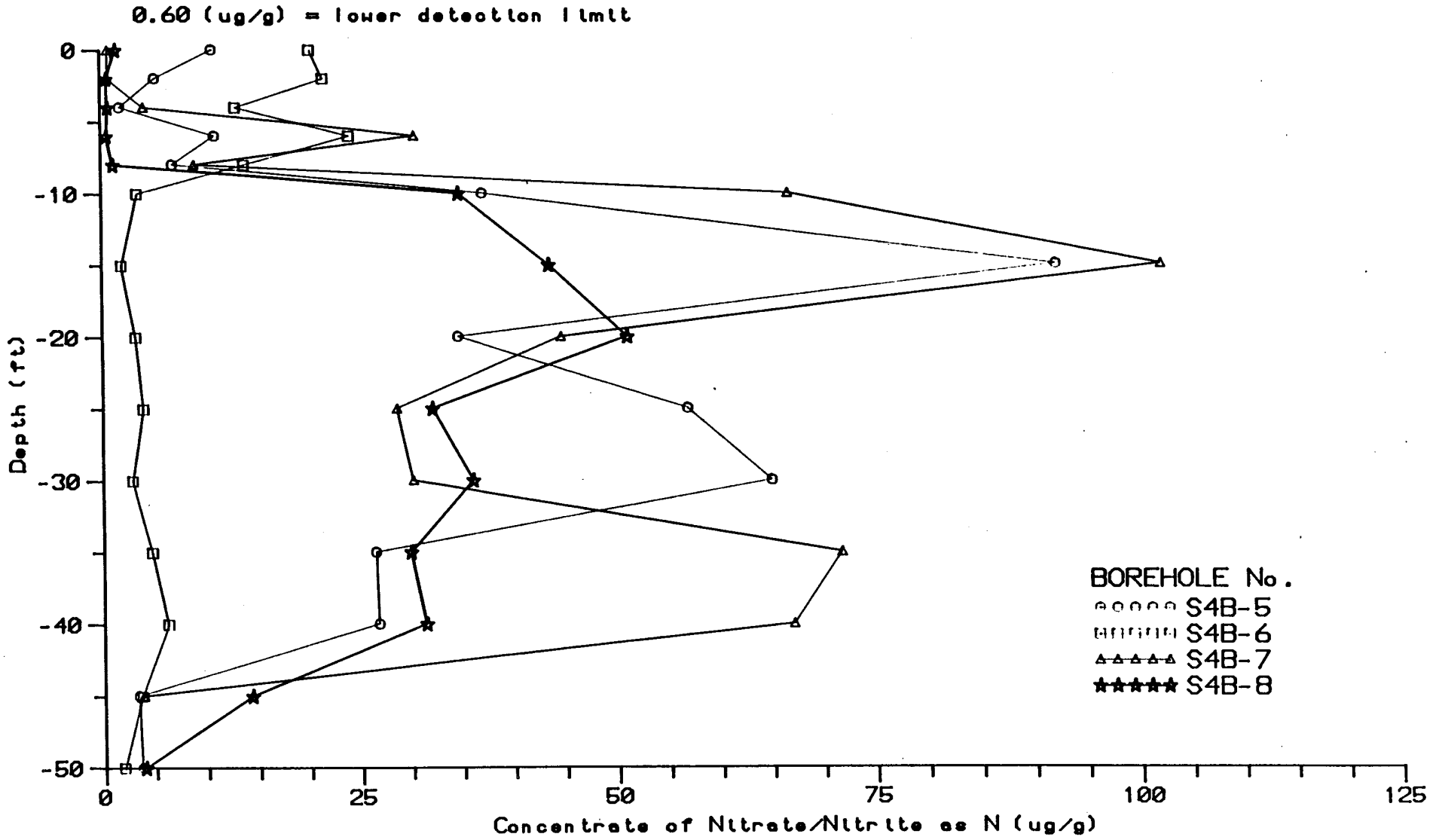


Figure D-8 Depth vs Concentration of Nitrate/Nitrite
Explosive Washout Lagoons

Appendix E
Lithologic Profiles of Explosives Concentrations in Soils

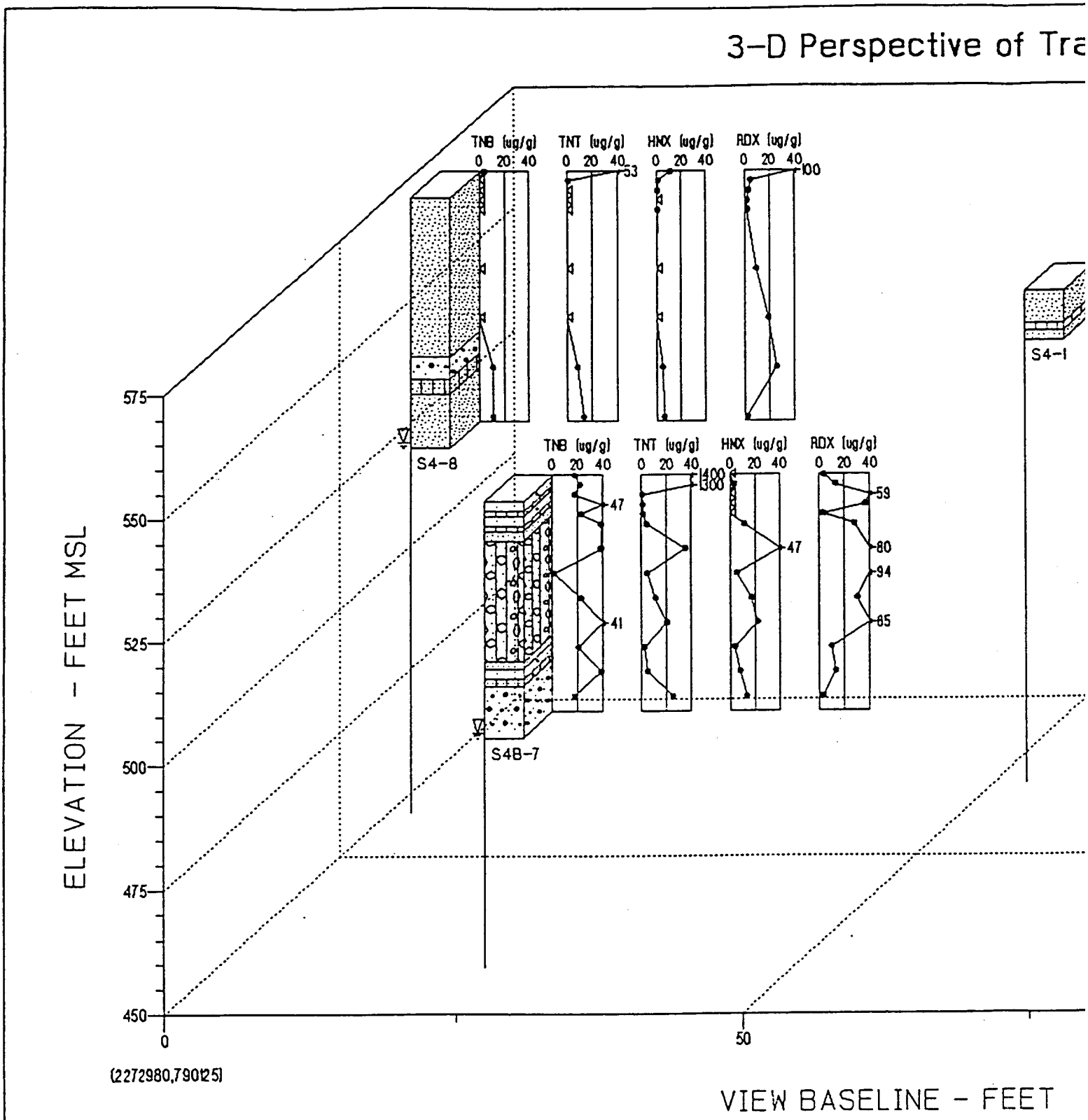
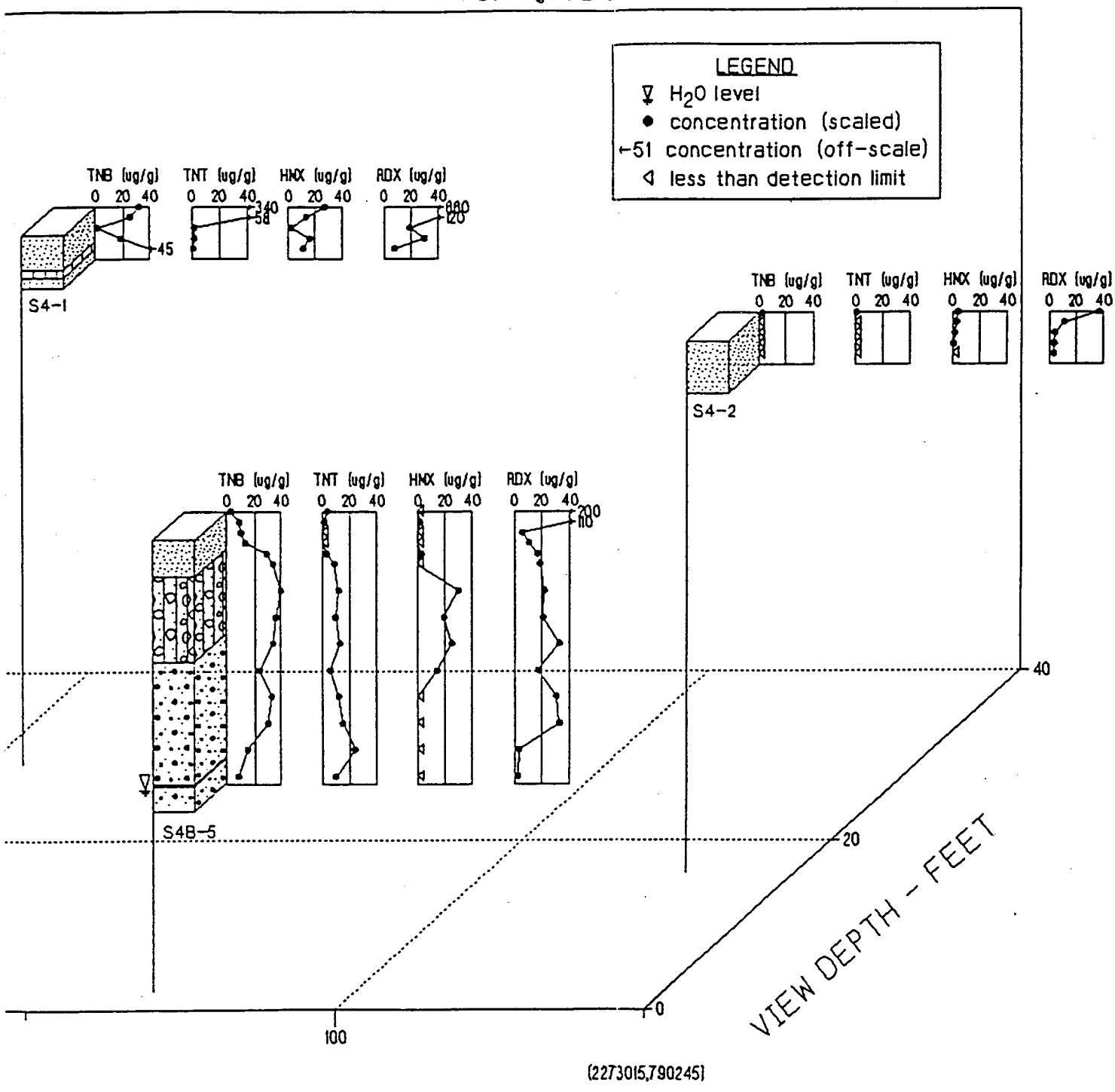


Figure E-1 – Lithologic Profile Showing

ıf Transect C–C'

* Symbols for lithologic profiles are described on borehole logs – Appendix B.
* Elevation of borehole S4-8 exaggerated to allow for viewing of chemical data.
* See Figure E-8 for borehole locations.



ːET

wing Concentrations of Explosives in Soil

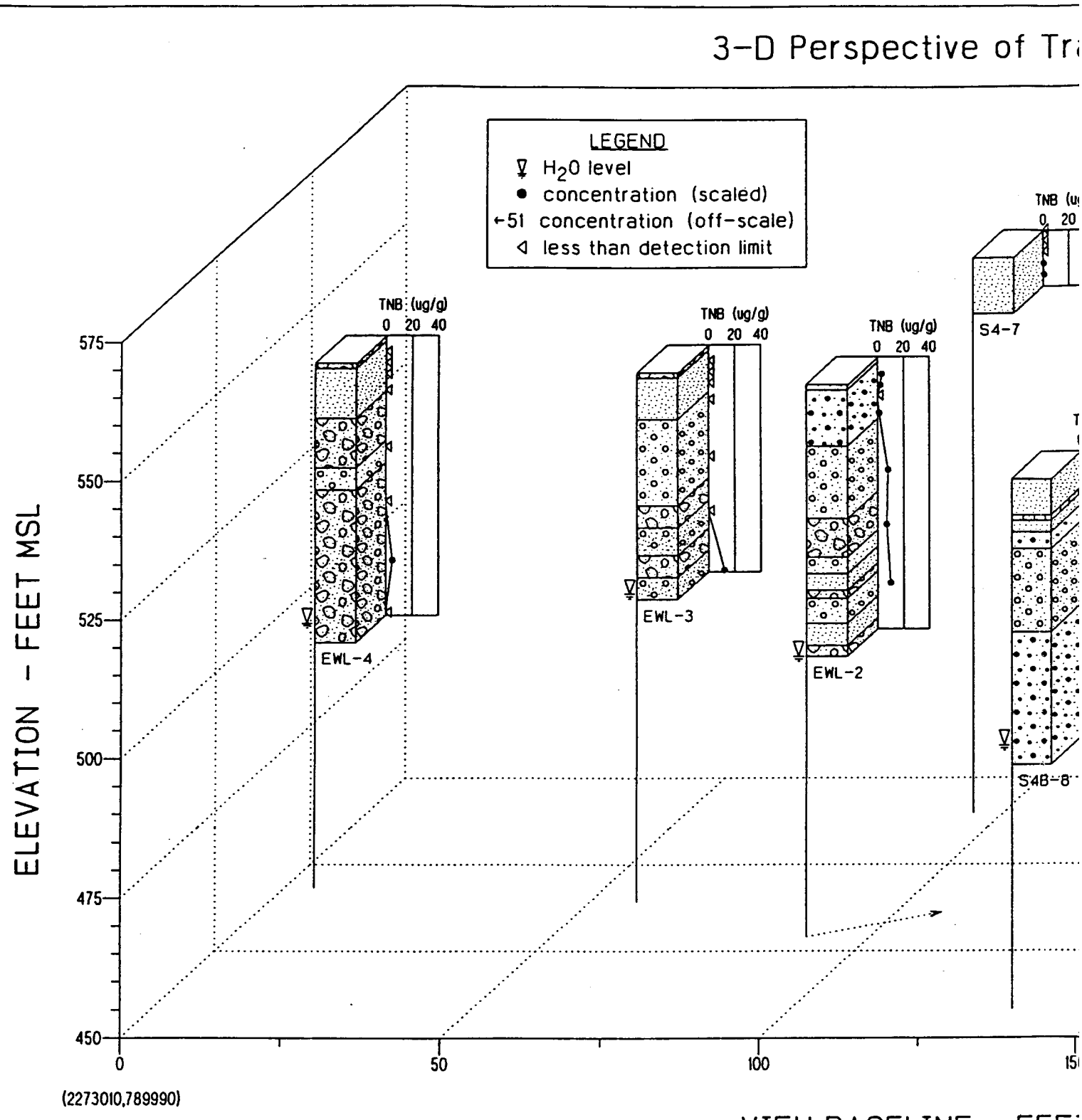
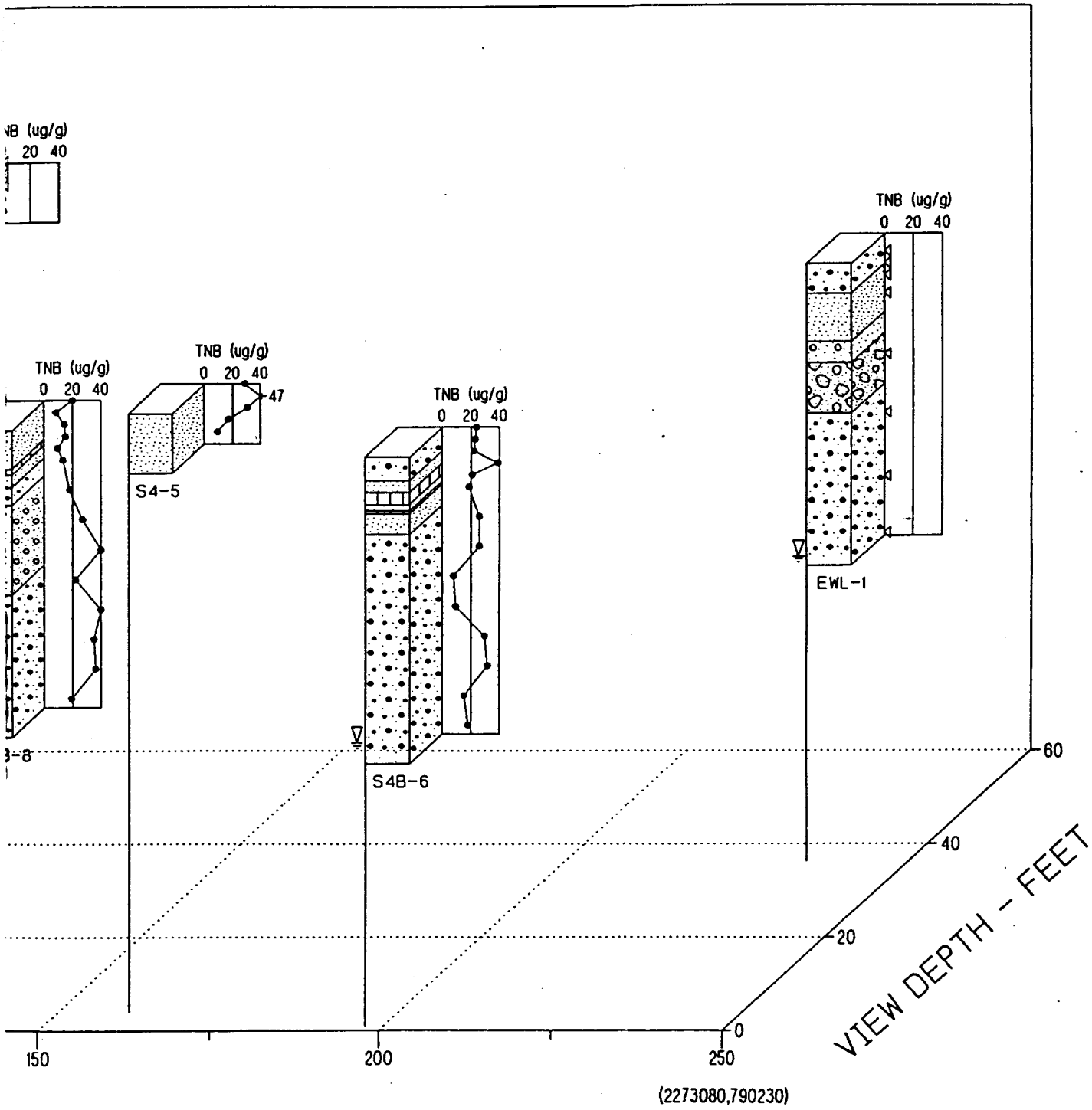


Figure E-2 – Lithologic Profile Showi

Transect D–D'

* Symbols for lithologic profiles are described on borehole logs – Appendix B.
* Borehole EWL-2 repositioned 20 ft south to allow for viewing of chemical data.
* See Figure E-6 for borehole locations.



EET

wing Concentration of 135TNB in Soil

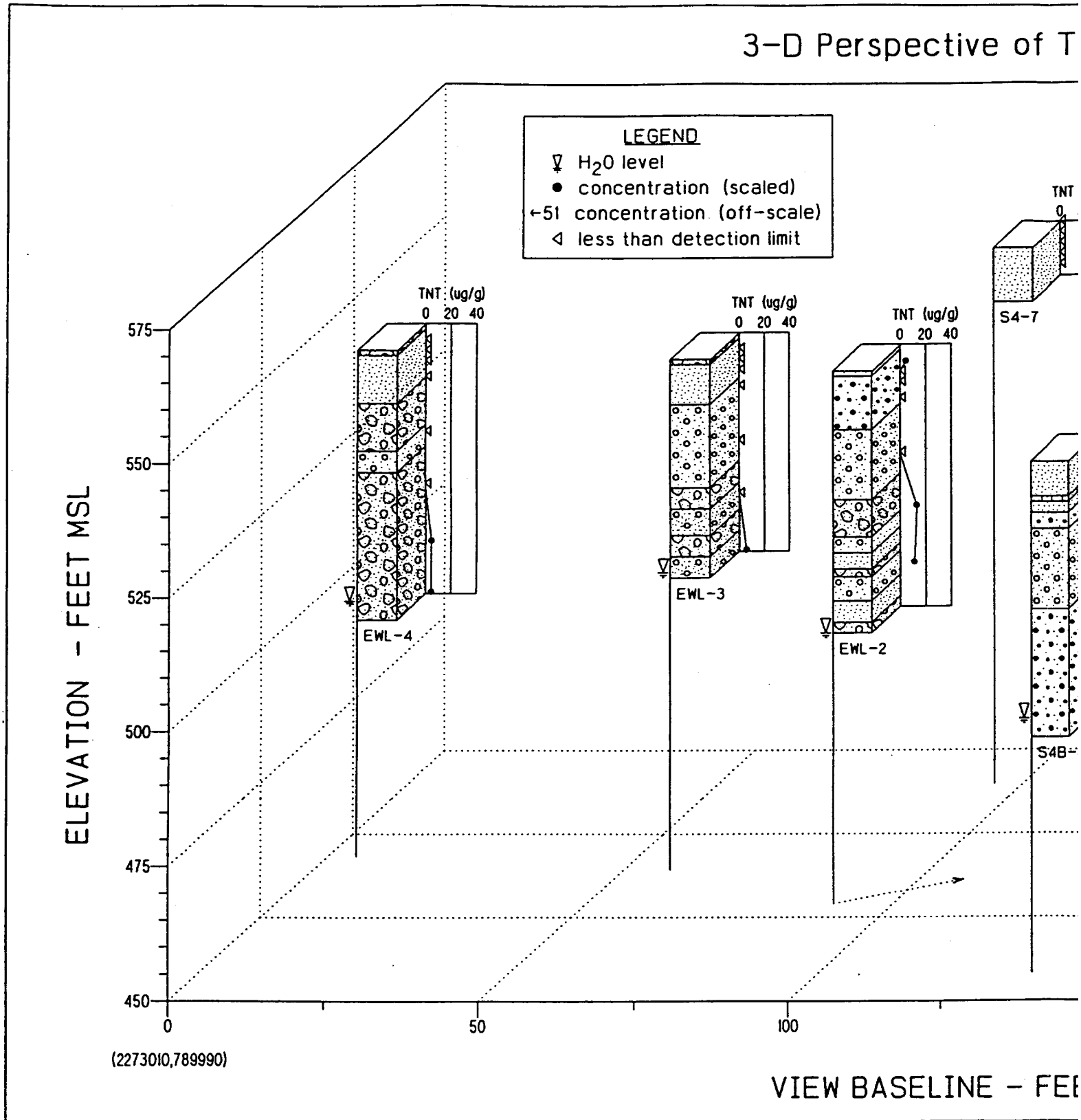
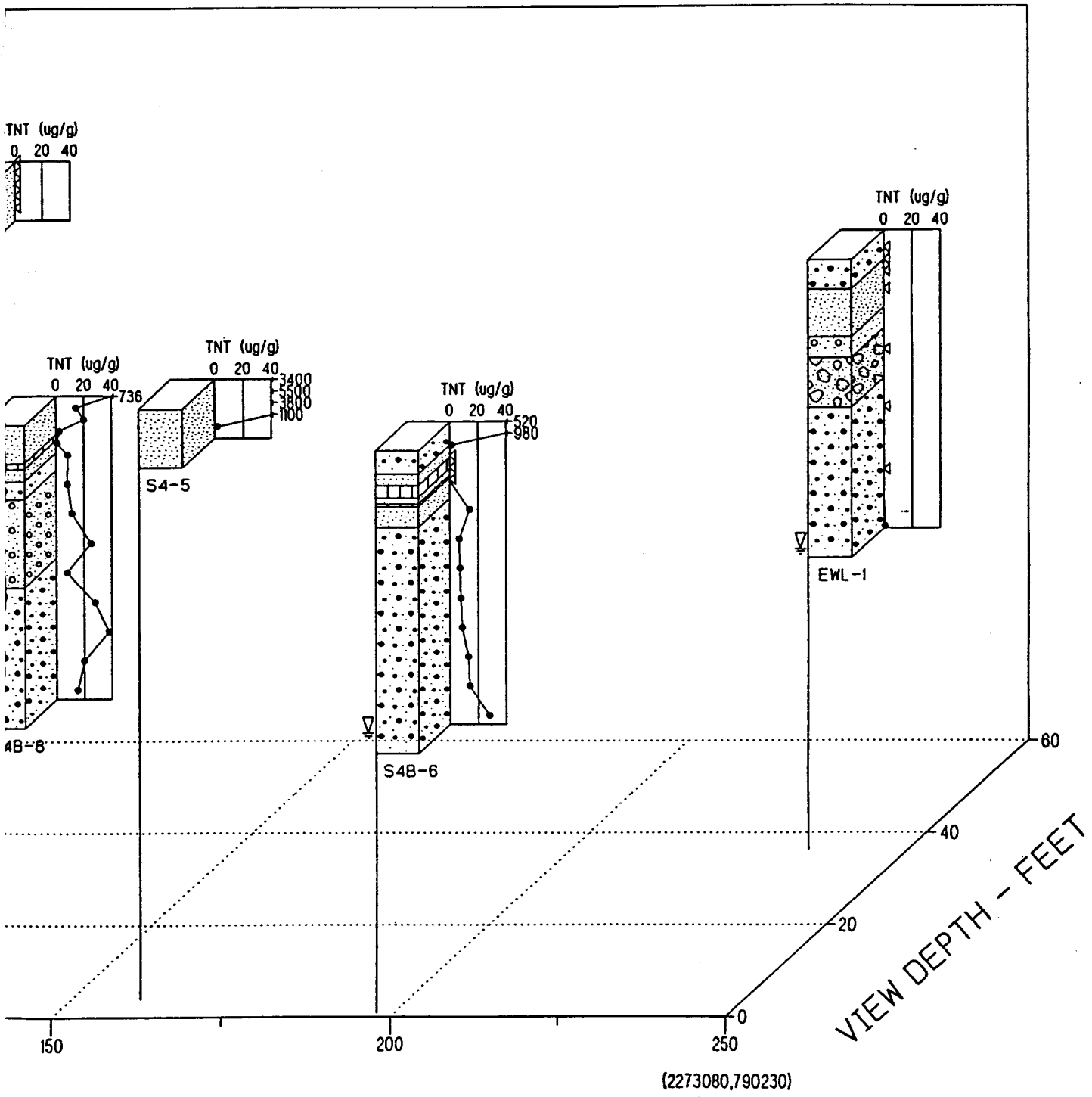


Figure E-3 – Lithologic Profile Show

Transect D–D'

* Symbols for lithologic profiles are described on borehole logs – Appendix B.
* Borehole EWL-2 repositioned 20 ft south to allow for viewing of chemical data.
* See Figure E-6 for borehole locations.



EET

)wing Concentration of 246TNT in Soil

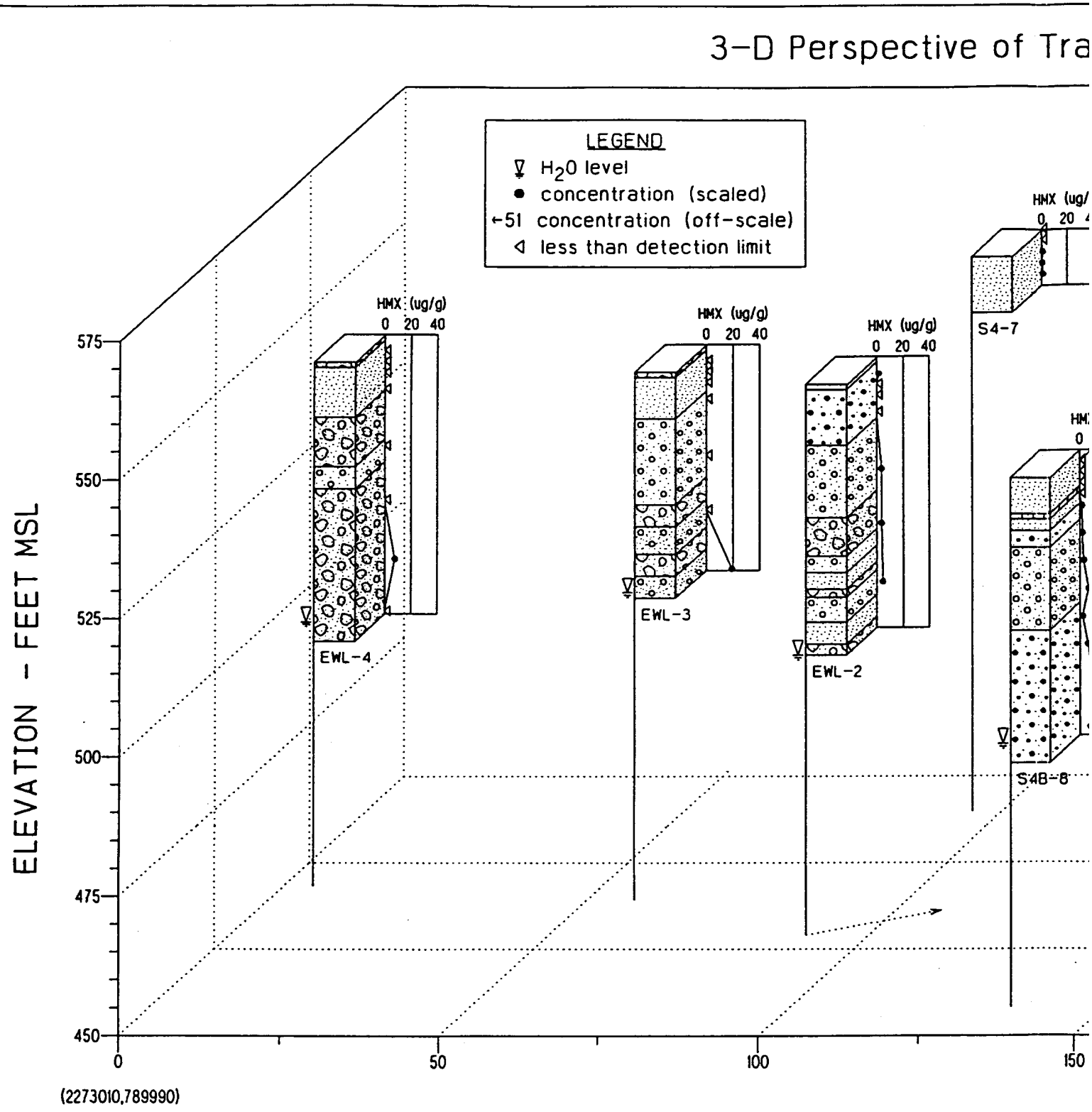
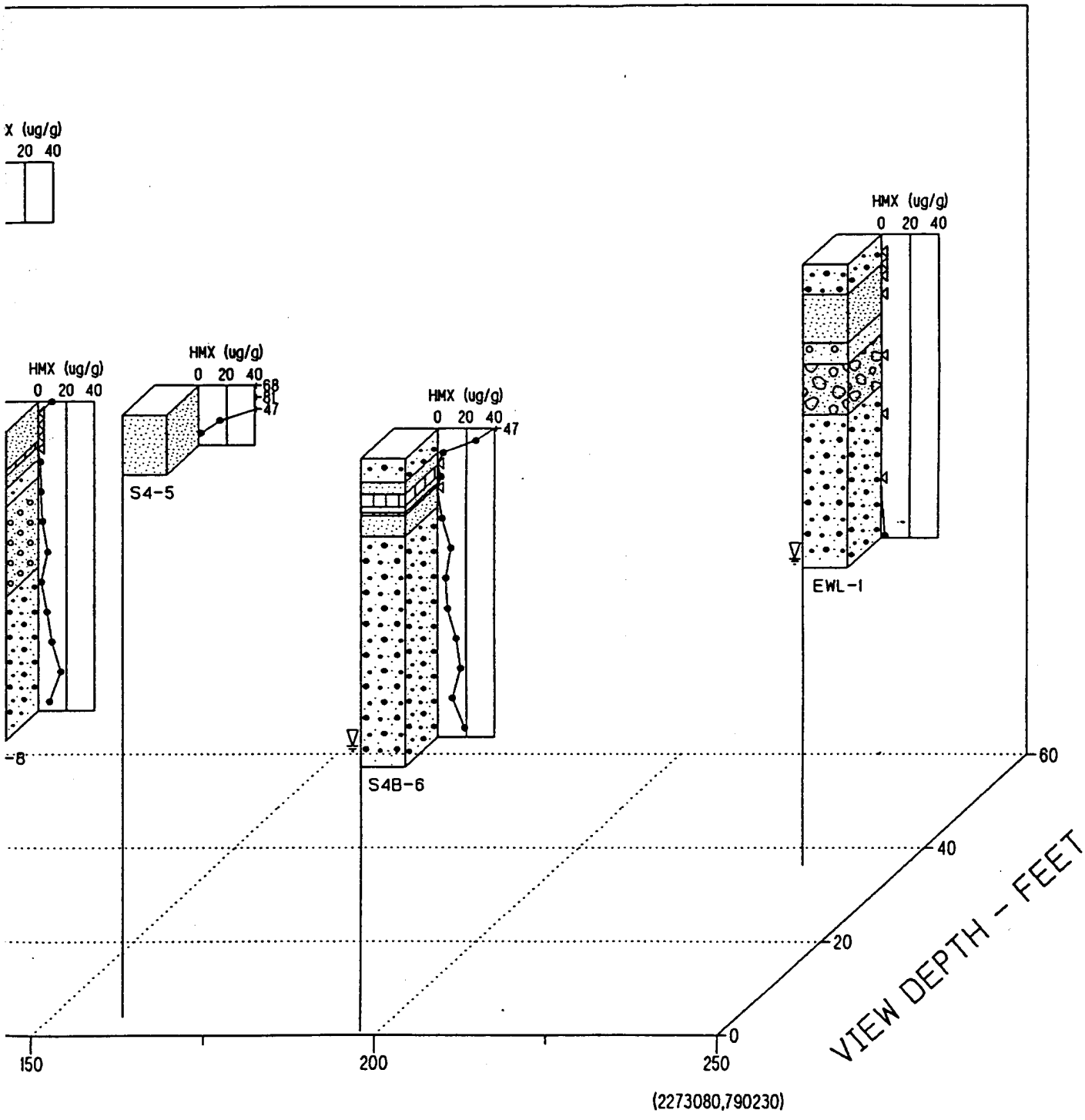


Figure E-4 – Lithologic Profile Show

Transect D–D'

* Symbols for lithologic profiles are described on borehole logs - Appendix B.
* Borehole EWL-2 repositioned 20 ft south to allow for viewing of chemical data.
* See Figure E-6 for borehole locations.



ET

owing Concentration of HMX in Soil

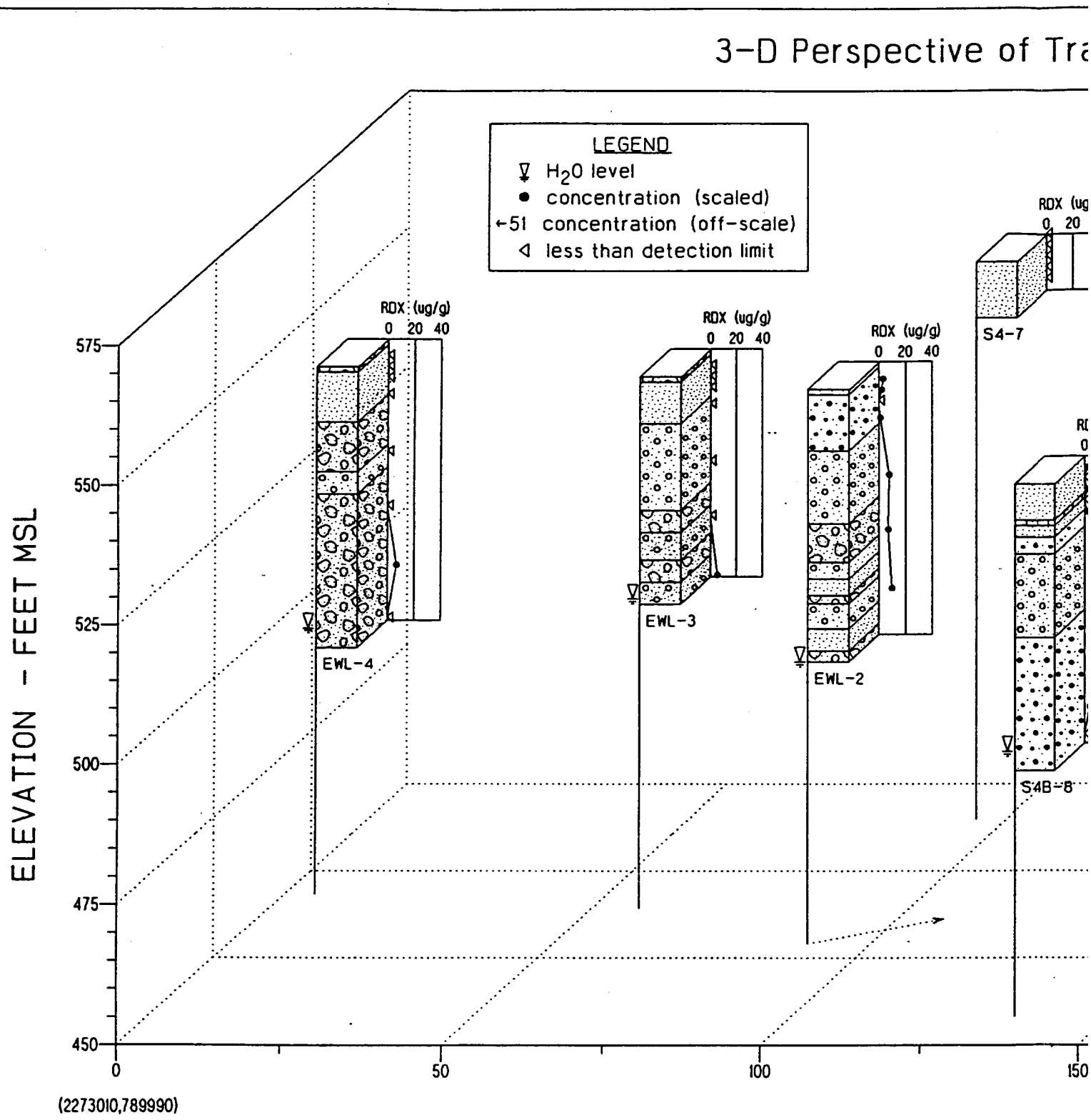
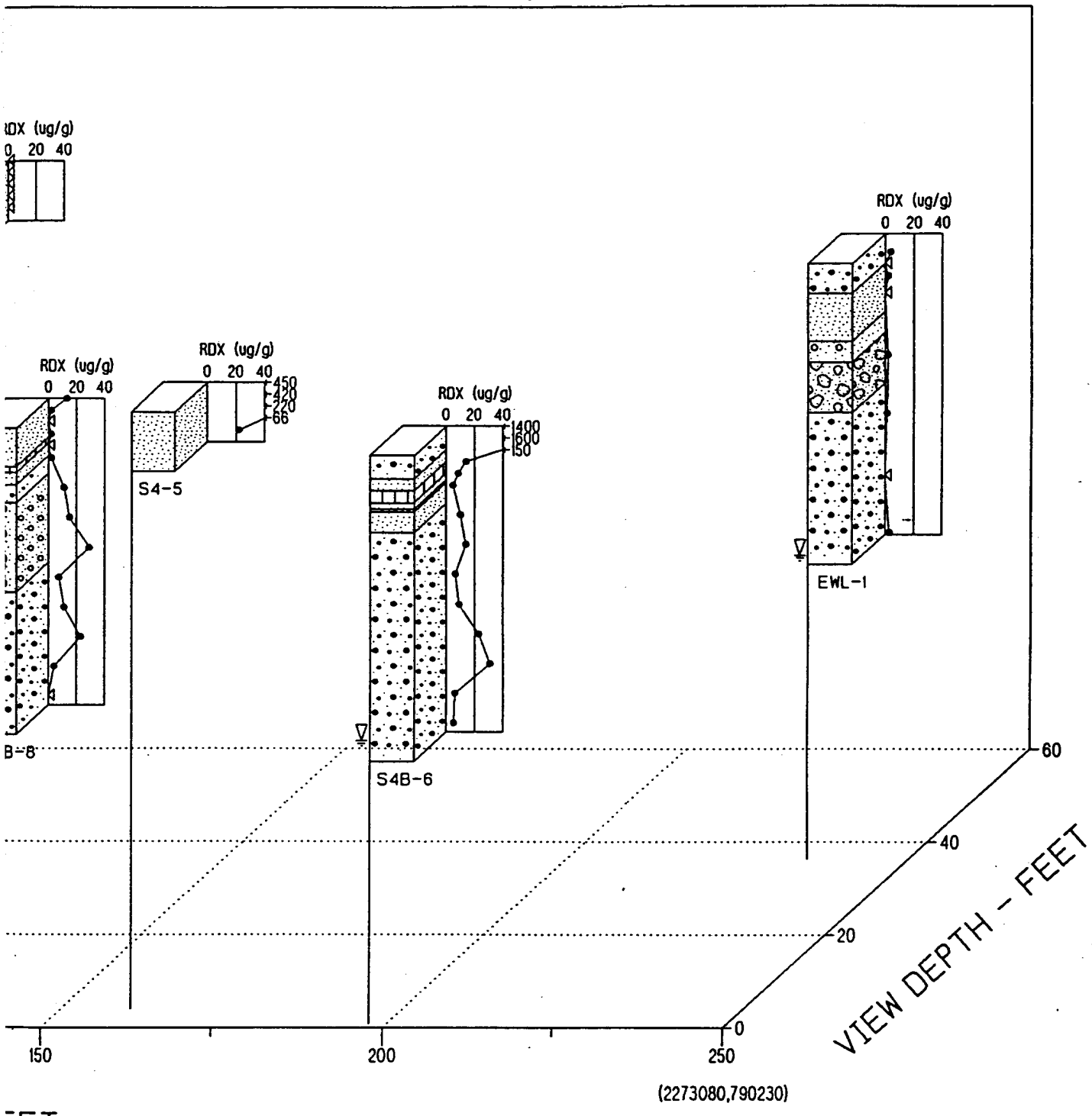


Figure E-5 – Lithologic Profile Show

Transect D–D'

* Symbols for lithologic profiles are described on borehole logs – Appendix B.
* Borehole EWL-2 repositioned 20 ft south to allow for viewing of chemical data.
* See Figure E-6 for borehole locations.



EET

howing Concentration of RDX in Soil

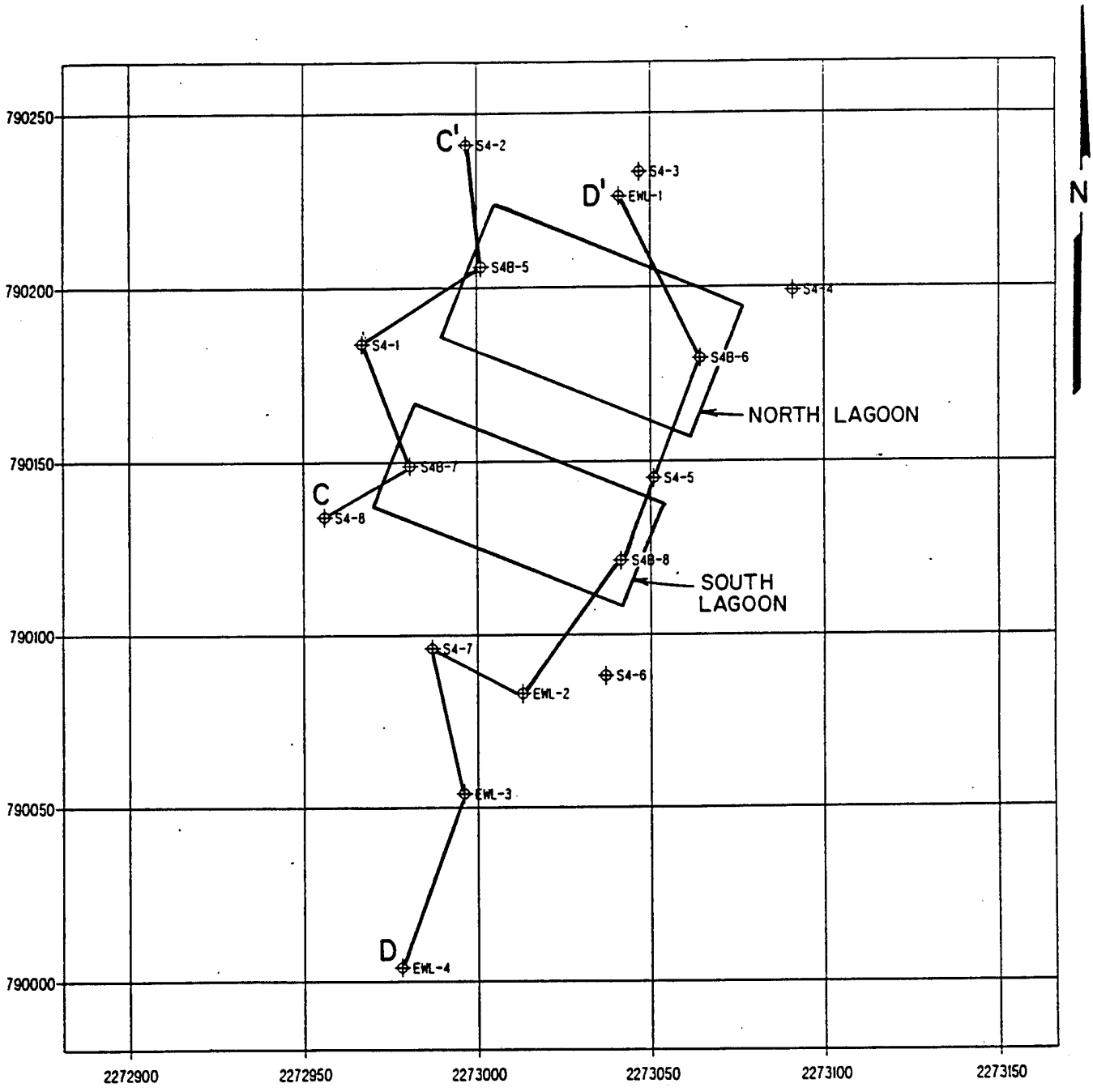


FIGURE No. E-6

PLAN VIEW MAP SHOWING TRANSECTS C-C' & D-D'

Appendix F
UMDA Background Soils Data

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA001

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
9.0	07-sep-1990	00	SULFID	LT	2.46e-01	UGG
5.0	07-sep-1990	00	SULFID	LT	2.48e-01	UGG
0.0	07-sep-1990	00	SULFID	LT	2.49e-01	UGG
0.0	07-sep-1990	JB01	HG	LT	5.00e-02	UGG
5.0	07-sep-1990	JB01	HG	LT	5.00e-02	UGG
9.0	07-sep-1990	JB01	HG	LT	5.00e-02	UGG
0.0	07-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	07-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	07-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	07-sep-1990	JD17	PB		3.47e+00	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA001 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	07-sep-1990	JD17	PB		3.68e+00	UGG
9.0	07-sep-1990	JD17	PB		4.00e+00	UGG
0.0	07-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	07-sep-1990	JD18	AG	LT	2.50e-02	UGG
9.0	07-sep-1990	JD18	AG	LT	2.50e-02	UGG
0.0	07-sep-1990	JD19	AS		1.65e+00	UGG
5.0	07-sep-1990	JD19	AS		4.49e+00	UGG
9.0	07-sep-1990	JD19	AS		5.24e+00	UGG
0.0	07-sep-1990	JS11	AL		5.68e+03	UGG
5.0	07-sep-1990	JS11	AL		6.44e+03	UGG
9.0	07-sep-1990	JS11	AL		7.21e+03	UGG
5.0	07-sep-1990	JS11	BA		1.16e+02	UGG
0.0	07-sep-1990	JS11	BA		1.30e+02	UGG
9.0	07-sep-1990	JS11	BA		1.58e+02	UGG
0.0	07-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	07-sep-1990	JS11	BE	LT	1.86e+00	UGG
9.0	07-sep-1990	JS11	BE	LT	1.86e+00	UGG
0.0	07-sep-1990	JS11	CA		5.52e+03	UGG
5.0	07-sep-1990	JS11	CA		1.17e+04	UGG
9.0	07-sep-1990	JS11	CA		2.28e+04	UGG
0.0	07-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	07-sep-1990	JS11	CD	LT	3.05e+00	UGG
9.0	07-sep-1990	JS11	CD	LT	3.05e+00	UGG
0.0	07-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	07-sep-1990	JS11	CO	LT	1.50e+01	UGG
9.0	07-sep-1990	JS11	CO	LT	1.50e+01	UGG
0.0	07-sep-1990	JS11	CR	LT	1.27e+01	UGG
5.0	07-sep-1990	JS11	CR	LT	1.27e+01	UGG
9.0	07-sep-1990	JS11	CR	LT	1.27e+01	UGG
0.0	07-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	07-sep-1990	JS11	CU	LT	5.86e+01	UGG
9.0	07-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	07-sep-1990	JS11	FE		1.70e+04	UGG
0.0	07-sep-1990	JS11	FE		1.85e+04	UGG
9.0	07-sep-1990	JS11	FE		1.86e+04	UGG
9.0	07-sep-1990	JS11	K		1.51e+03	UGG
5.0	07-sep-1990	JS11	K		1.80e+03	UGG
0.0	07-sep-1990	JS11	K		2.12e+03	UGG
0.0	07-sep-1990	JS11	MG		5.30e+03	UGG
5.0	07-sep-1990	JS11	MG		6.92e+03	UGG
9.0	07-sep-1990	JS11	MG		8.15e+03	UGG
5.0	07-sep-1990	JS11	MN		3.72e+02	UGG
0.0	07-sep-1990	JS11	MN		4.64e+02	UGG
9.0	07-sep-1990	JS11	MN		6.81e+02	UGG
0.0	07-sep-1990	JS11	NA		4.93e+02	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA001 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	07-sep-1990	JS11	NA		5.81e+02	UGG
9.0	07-sep-1990	JS11	NA		9.78e+02	UGG
0.0	07-sep-1990	JS11	NI	LT	1.26e+01	UGG
5.0	07-sep-1990	JS11	NI	LT	1.26e+01	UGG
9.0	07-sep-1990	JS11	NI	LT	1.26e+01	UGG
0.0	07-sep-1990	JS11	SB	LT	3.80e+00	UGG
5.0	07-sep-1990	JS11	SB	LT	3.80e+00	UGG
9.0	07-sep-1990	JS11	SB	LT	3.80e+00	UGG
0.0	07-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	07-sep-1990	JS11	TL	LT	3.13e+01	UGG
9.0	07-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	07-sep-1990	JS11	V		7.48e+01	UGG
9.0	07-sep-1990	JS11	V		8.28e+01	UGG
0.0	07-sep-1990	JS11	V		8.41e+01	UGG
5.0	07-sep-1990	JS11	ZN		6.02e+01	UGG
9.0	07-sep-1990	JS11	ZN		6.37e+01	UGG
0.0	07-sep-1990	JS11	ZN		6.60e+01	UGG
0.0	07-sep-1990	KF10	NIT		8.05e-01	UGG
5.0	07-sep-1990	KF10	NIT	LT	6.00e-01	UGG
9.0	07-sep-1990	KF10	NIT	LT	6.00e-01	UGG
0.0	07-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	07-sep-1990	KY01	CYN	LT	9.20e-01	UGG
9.0	07-sep-1990	KY01	CYN	LT	9.20e-01	UGG

Site: BORE SBSA002

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	05-sep-1990	00	SULFID	LT	2.34e-01	UGG
9.0	05-sep-1990	00	SULFID	LT	2.41e-01	UGG
5.0	05-sep-1990	00	SULFID	LT	2.43e-01	UGG
0.0	05-sep-1990	JB01	HG		5.56e-02	UGG
5.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
9.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
0.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD17	PB		5.24e+00	UGG
5.0	05-sep-1990	JD17	PB		5.61e+00	UGG
0.0	05-sep-1990	JD17	PB		8.37e+00	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA002 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
9.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
0.0	05-sep-1990	JD19	AS		2.42e+00	UGG
9.0	05-sep-1990	JD19	AS		4.59e+00	UGG
5.0	05-sep-1990	JD19	AS		4.69e+00	UGG
9.0	05-sep-1990	JS11	AL		4.53e+03	UGG
0.0	05-sep-1990	JS11	AL		6.61e+03	UGG
5.0	05-sep-1990	JS11	AL		8.60e+03	UGG
9.0	05-sep-1990	JS11	BA		1.20e+02	UGG
0.0	05-sep-1990	JS11	BA		1.31e+02	UGG
5.0	05-sep-1990	JS11	BA		1.82e+02	UGG
0.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
9.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
0.0	05-sep-1990	JS11	CA		5.72e+03	UGG
9.0	05-sep-1990	JS11	CA		1.53e+04	UGG
5.0	05-sep-1990	JS11	CA		2.90e+04	UGG
0.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
9.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
0.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
9.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
0.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
5.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
9.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
0.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
9.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
9.0	05-sep-1990	JS11	FE		1.58e+04	UGG
0.0	05-sep-1990	JS11	FE		1.76e+04	UGG
5.0	05-sep-1990	JS11	FE		2.62e+04	UGG
9.0	05-sep-1990	JS11	K		9.88e+02	UGG
5.0	05-sep-1990	JS11	K		1.57e+03	UGG
0.0	05-sep-1990	JS11	K		2.18e+03	UGG
0.0	05-sep-1990	JS11	MG		5.36e+03	UGG
9.0	05-sep-1990	JS11	MG		5.67e+03	UGG
5.0	05-sep-1990	JS11	MG		8.59e+03	UGG
0.0	05-sep-1990	JS11	MN		5.05e+02	UGG
9.0	05-sep-1990	JS11	MN		5.46e+02	UGG
5.0	05-sep-1990	JS11	MN		8.74e+02	UGG
0.0	05-sep-1990	JS11	NA		4.86e+02	UGG
9.0	05-sep-1990	JS11	NA		5.08e+02	UGG
5.0	05-sep-1990	JS11	NA		6.94e+02	UGG
0.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG

Site: BORE SBSA002 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
9.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
0.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
5.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
9.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
0.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
9.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
9.0	05-sep-1990	JS11	V		6.77e+01	UGG
0.0	05-sep-1990	JS11	V		8.09e+01	UGG
5.0	05-sep-1990	JS11	V		1.05e+02	UGG
9.0	05-sep-1990	JS11	ZN		5.60e+01	UGG
0.0	05-sep-1990	JS11	ZN		7.26e+01	UGG
5.0	05-sep-1990	JS11	ZN		7.65e+01	UGG
0.0	05-sep-1990	KF10	NIT		3.74e+00	UGG
5.0	05-sep-1990	KF10	NIT	LT	6.00e-01	UGG
9.0	05-sep-1990	KF10	NIT	LT	6.00e-01	UGG
0.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
9.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG

Site: BORE SBSA003

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	05-sep-1990	00	SULFID	LT	2.42e-01	UGG
5.0	05-sep-1990	00	SULFID	LT	2.47e-01	UGG
0.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
5.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
0.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
0.0	05-sep-1990	JD17	PB		4.48e+00	UGG
5.0	05-sep-1990	JD17	PB		6.53e+00	UGG
0.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
0.0	05-sep-1990	JD19	AS		1.86e+00	UGG
5.0	05-sep-1990	JD19	AS		2.73e+00	UGG
0.0	05-sep-1990	JS11	AL		6.31e+03	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA003 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	JS11	AL		6.36e+03	UGG
0.0	05-sep-1990	JS11	BA		1.37e+02	UGG
5.0	05-sep-1990	JS11	BA		2.33e+02	UGG
0.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
0.0	05-sep-1990	JS11	CA		5.23e+03	UGG
5.0	05-sep-1990	JS11	CA		2.00e+04	UGG
0.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
0.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
0.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
5.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
0.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
0.0	05-sep-1990	JS11	FE		1.86e+04	UGG
5.0	05-sep-1990	JS11	FE		2.47e+04	UGG
5.0	05-sep-1990	JS11	K		9.44e+02	UGG
0.0	05-sep-1990	JS11	K		1.98e+03	UGG
0.0	05-sep-1990	JS11	MG		5.15e+03	UGG
5.0	05-sep-1990	JS11	MG		6.71e+03	UGG
0.0	05-sep-1990	JS11	MN		4.71e+02	UGG
5.0	05-sep-1990	JS11	MN		7.59e+02	UGG
0.0	05-sep-1990	JS11	NA		4.73e+02	UGG
5.0	05-sep-1990	JS11	NA		7.18e+02	UGG
0.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
5.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
0.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
5.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
0.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
0.0	05-sep-1990	JS11	V		7.75e+01	UGG
5.0	05-sep-1990	JS11	V		1.12e+02	UGG
0.0	05-sep-1990	JS11	ZN		7.63e+01	UGG
5.0	05-sep-1990	JS11	ZN		8.27e+01	UGG
0.0	05-sep-1990	KF10	NIT		1.21e+00	UGG
5.0	05-sep-1990	KF10	NIT	LT	6.00e-01	UGG
0.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA004

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	00	SULFID	LT	2.38e-01	UGG
0.0	05-sep-1990	00	SULFID	LT	2.39e-01	UGG
0.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
5.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
0.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD17	PB		4.60e+00	UGG
0.0	05-sep-1990	JD17	PB		4.83e+00	UGG
0.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD19	AS		1.09e+00	UGG
0.0	05-sep-1990	JD19	AS		2.00e+00	UGG
5.0	05-sep-1990	JS11	AL		5.08e+03	UGG
0.0	05-sep-1990	JS11	AL		5.85e+03	UGG
0.0	05-sep-1990	JS11	BA		1.34e+02	UGG
5.0	05-sep-1990	JS11	BA		1.66e+02	UGG
0.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
0.0	05-sep-1990	JS11	CA		5.08e+03	UGG
5.0	05-sep-1990	JS11	CA		9.09e+03	UGG
0.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
0.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
0.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
5.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
0.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
0.0	05-sep-1990	JS11	FE		1.78e+04	UGG
5.0	05-sep-1990	JS11	FE		2.44e+04	UGG
5.0	05-sep-1990	JS11	K		9.82e+02	UGG
0.0	05-sep-1990	JS11	K		1.75e+03	UGG
0.0	05-sep-1990	JS11	MG		4.56e+03	UGG
5.0	05-sep-1990	JS11	MG		5.81e+03	UGG
0.0	05-sep-1990	JS11	MN		5.01e+02	UGG
5.0	05-sep-1990	JS11	MN		5.68e+02	UGG
0.0	05-sep-1990	JS11	NA		4.79e+02	UGG
5.0	05-sep-1990	JS11	NA		6.78e+02	UGG
0.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
5.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
0.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
5.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA004 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
0.0	05-sep-1990	JS11	V		7.31e+01	UGG
5.0	05-sep-1990	JS11	V		9.79e+01	UGG
0.0	05-sep-1990	JS11	ZN		6.38e+01	UGG
5.0	05-sep-1990	JS11	ZN		7.57e+01	UGG
0.0	05-sep-1990	KF10	NIT		2.39e+00	UGG
5.0	05-sep-1990	KF10	NIT	LT	6.00e-01	UGG
0.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG

Site: BORE SBSA005

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	10-jul-1990	00	SULFID	LT	2.45e-01	MGKG
0.0	10-jul-1990	00	SULFID	LT	2.50e-01	MGKG
0.0	10-jul-1990	JB01	HG	LT	5.00e-02	UGG
5.0	10-jul-1990	JB01	HG	LT	5.00e-02	UGG
0.0	10-jul-1990	JD15	SE	LT	2.50e-01	UGG
5.0	10-jul-1990	JD15	SE	LT	2.50e-01	UGG
5.0	10-jul-1990	JD16	V		5.38e+01	UGG
0.0	10-jul-1990	JD16	V		7.43e+01	UGG
5.0	10-jul-1990	JD17	PB		3.05e+00	UGG
0.0	10-jul-1990	JD17	PB		5.92e+00	UGG
0.0	10-jul-1990	JD18	AG		3.79e-02	UGG
5.0	10-jul-1990	JD18	AG	LT	2.50e-02	UGG
5.0	10-jul-1990	JD19	AS		1.46e+00	UGG
0.0	10-jul-1990	JD19	AS		2.23e+00	UGG
5.0	10-jul-1990	JS11	AL		2.57e+03	UGG
0.0	10-jul-1990	JS11	AL		5.57e+03	UGG
0.0	10-jul-1990	JS11	BA		1.32e+02	UGG
5.0	10-jul-1990	JS11	BA	LT	2.96e+01	UGG
0.0	10-jul-1990	JS11	BE	LT	1.86e+00	UGG
5.0	10-jul-1990	JS11	BE	LT	1.86e+00	UGG
5.0	10-jul-1990	JS11	CA		5.07e+03	UGG
0.0	10-jul-1990	JS11	CA		5.62e+03	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA005 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	10-jul-1990	JS11	CD	LT	3.05e+00	UGG
5.0	10-jul-1990	JS11	CD	LT	3.05e+00	UGG
0.0	10-jul-1990	JS11	CO	LT	1.50e+01	UGG
5.0	10-jul-1990	JS11	CO	LT	1.50e+01	UGG
0.0	10-jul-1990	JS11	CR	LT	1.27e+01	UGG
5.0	10-jul-1990	JS11	CR	LT	1.27e+01	UGG
0.0	10-jul-1990	JS11	CU	LT	5.86e+01	UGG
5.0	10-jul-1990	JS11	CU	LT	5.86e+01	UGG
5.0	10-jul-1990	JS11	FE		8.04e+03	UGG
0.0	10-jul-1990	JS11	FE		1.78e+04	UGG
5.0	10-jul-1990	JS11	K		3.56e+02	UGG
0.0	10-jul-1990	JS11	K		2.03e+03	UGG
5.0	10-jul-1990	JS11	MG		3.72e+03	UGG
0.0	10-jul-1990	JS11	MG		5.26e+03	UGG
5.0	10-jul-1990	JS11	MN		1.08e+02	UGG
0.0	10-jul-1990	JS11	MN		4.91e+02	UGG
5.0	10-jul-1990	JS11	NA		3.35e+02	UGG
0.0	10-jul-1990	JS11	NA		3.97e+02	UGG
0.0	10-jul-1990	JS11	NI	LT	1.26e+01	UGG
5.0	10-jul-1990	JS11	NI	LT	1.26e+01	UGG
0.0	10-jul-1990	JS11	SB	LT	3.80e+00	UGG
5.0	10-jul-1990	JS11	SB	LT	3.80e+00	UGG
0.0	10-jul-1990	JS11	TL	LT	3.13e+01	UGG
5.0	10-jul-1990	JS11	TL	LT	3.13e+01	UGG
0.0	10-jul-1990	JS11	ZN		7.14e+01	UGG
5.0	10-jul-1990	JS11	ZN	LT	3.02e+01	UGG
0.0	10-jul-1990	KF10	NIT		6.69e-01	UGG
5.0	10-jul-1990	KF10	NIT	LT	6.00e-01	UGG
0.0	10-jul-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	10-jul-1990	KY01	CYN	LT	9.20e-01	UGG

Site: BORE SBSA006

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	00	SULFID	LT	2.39e-01	UGG
9.0	05-sep-1990	00	SULFID	LT	2.40e-01	UGG
0.0	05-sep-1990	00	SULFID	LT	2.45e-01	UGG
0.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
5.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
9.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
0.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD17	PB		2.86e+00	UGG
5.0	05-sep-1990	JD17	PB		4.14e+00	UGG
0.0	05-sep-1990	JD17	PB		4.49e+00	UGG
0.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
9.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
0.0	05-sep-1990	JD19	AS		1.22e+00	UGG
5.0	05-sep-1990	JD19	AS		1.60e+00	UGG
9.0	05-sep-1990	JD19	AS		1.71e+00	UGG
5.0	05-sep-1990	JS11	AL		4.01e+03	UGG
9.0	05-sep-1990	JS11	AL		4.36e+03	UGG
0.0	05-sep-1990	JS11	AL		5.27e+03	UGG
5.0	05-sep-1990	JS11	BA		8.65e+01	UGG
9.0	05-sep-1990	JS11	BA		1.05e+02	UGG
0.0	05-sep-1990	JS11	BA		1.32e+02	UGG
0.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
9.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
0.0	05-sep-1990	JS11	CA		6.27e+03	UGG
5.0	05-sep-1990	JS11	CA		7.35e+03	UGG
9.0	05-sep-1990	JS11	CA		8.61e+03	UGG
0.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
9.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
0.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
9.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
0.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
5.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
9.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
0.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
9.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
0.0	05-sep-1990	JS11	FE		2.09e+04	UGG
5.0	05-sep-1990	JS11	FE		2.15e+04	UGG
9.0	05-sep-1990	JS11	FE		2.15e+04	UGG
9.0	05-sep-1990	JS11	K		6.92e+02	UGG
5.0	05-sep-1990	JS11	K		6.97e+02	UGG
0.0	05-sep-1990	JS11	K		1.76e+03	UGG
0.0	05-sep-1990	JS11	MG		5.28e+03	UGG
5.0	05-sep-1990	JS11	MG		5.49e+03	UGG
9.0	05-sep-1990	JS11	MG		5.57e+03	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA006 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
9.0	05-sep-1990	JS11	MN		4.30e+02	UGG
5.0	05-sep-1990	JS11	MN		4.49e+02	UGG
0.0	05-sep-1990	JS11	MN		5.73e+02	UGG
0.0	05-sep-1990	JS11	NA		4.53e+02	UGG
5.0	05-sep-1990	JS11	NA		5.60e+02	UGG
9.0	05-sep-1990	JS11	NA		5.66e+02	UGG
0.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
5.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
9.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
0.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
5.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
9.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
0.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
9.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
0.0	05-sep-1990	JS11	V		9.24e+01	UGG
5.0	05-sep-1990	JS11	V		1.03e+02	UGG
9.0	05-sep-1990	JS11	V		1.03e+02	UGG
5.0	05-sep-1990	JS11	ZN		7.14e+01	UGG
9.0	05-sep-1990	JS11	ZN		7.14e+01	UGG
0.0	05-sep-1990	JS11	ZN		7.74e+01	UGG
0.0	05-sep-1990	KF10	NIT		1.28e+00	UGG
5.0	05-sep-1990	KF10	NIT	LT	6.00e-01	UGG
9.0	05-sep-1990	KF10	NIT	LT	6.00e-01	UGG
0.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
9.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG

Site: BORE SBSA007

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	05-sep-1990	00	SULFID		3.17e-01	UGG
5.0	05-sep-1990	00	SULFID	LT	2.39e-01	UGG
5.0	05-sep-1990	00	SULFID	LT	2.40e-01	UGG
9.0	05-sep-1990	00	SULFID	LT	2.40e-01	UGG
0.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
5.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
9.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
0.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	JD17	PB		2.22e+00	UGG
9.0	05-sep-1990	JD17	PB		4.26e+00	UGG
0.0	05-sep-1990	JD17	PB		4.33e+00	UGG
0.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
9.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD19	AS		2.08e+00	UGG
0.0	05-sep-1990	JD19	AS		2.19e+00	UGG
9.0	05-sep-1990	JD19	AS		2.24e+00	UGG
5.0	05-sep-1990	JS11	AL		3.76e+03	UGG
9.0	05-sep-1990	JS11	AL		4.17e+03	UGG
5.0	05-sep-1990	JS11	AL		5.28e+03	UGG
0.0	05-sep-1990	JS11	AL		6.44e+03	UGG
5.0	05-sep-1990	JS11	BA		9.66e+01	UGG
9.0	05-sep-1990	JS11	BA		1.01e+02	UGG
5.0	05-sep-1990	JS11	BA		1.17e+02	UGG
0.0	05-sep-1990	JS11	BA		1.58e+02	UGG
0.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
9.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
0.0	05-sep-1990	JS11	CA		6.35e+03	UGG
5.0	05-sep-1990	JS11	CA		1.06e+04	UGG
9.0	05-sep-1990	JS11	CA		1.33e+04	UGG
5.0	05-sep-1990	JS11	CA		1.45e+04	UGG
0.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
9.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
0.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
9.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
0.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
5.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
5.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
9.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
0.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
9.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	FE		1.79e+04	UGG
0.0	05-sep-1990	JS11	FE		1.97e+04	UGG
9.0	05-sep-1990	JS11	FE		2.08e+04	UGG
5.0	05-sep-1990	JS11	FE		2.59e+04	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA007 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	JS11	K		6.55e+02	UGG
9.0	05-sep-1990	JS11	K		7.26e+02	UGG
5.0	05-sep-1990	JS11	K		9.26e+02	UGG
0.0	05-sep-1990	JS11	K		2.02e+03	UGG
5.0	05-sep-1990	JS11	MG		4.46e+03	UGG
0.0	05-sep-1990	JS11	MG		5.44e+03	UGG
9.0	05-sep-1990	JS11	MG		5.49e+03	UGG
5.0	05-sep-1990	JS11	MG		6.01e+03	UGG
5.0	05-sep-1990	JS11	MN		3.78e+02	UGG
9.0	05-sep-1990	JS11	MN		4.02e+02	UGG
5.0	05-sep-1990	JS11	MN		4.53e+02	UGG
0.0	05-sep-1990	JS11	MN		5.14e+02	UGG
0.0	05-sep-1990	JS11	NA		5.09e+02	UGG
9.0	05-sep-1990	JS11	NA		7.53e+02	UGG
5.0	05-sep-1990	JS11	NA		8.09e+02	UGG
5.0	05-sep-1990	JS11	NA		9.63e+02	UGG
0.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
5.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
5.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
9.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
0.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
5.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
5.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
9.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
0.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
9.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	V		9.10e+01	UGG
0.0	05-sep-1990	JS11	V		9.42e+01	UGG
9.0	05-sep-1990	JS11	V		9.88e+01	UGG
5.0	05-sep-1990	JS11	V		1.31e+02	UGG
5.0	05-sep-1990	JS11	ZN		6.11e+01	UGG
9.0	05-sep-1990	JS11	ZN		6.74e+01	UGG
5.0	05-sep-1990	JS11	ZN		8.76e+01	UGG
0.0	05-sep-1990	JS11	ZN		9.40e+01	UGG
9.0	05-sep-1990	KF10	NIT		1.07e+00	UGG
5.0	05-sep-1990	KF10	NIT		1.17e+00	UGG
0.0	05-sep-1990	KF10	NIT		3.82e+00	UGG
0.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
9.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA007D

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
5.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD17	PB		5.90e+00	UGG
5.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD19	AS		2.46e+00	UGG
5.0	05-sep-1990	KF10	NIT		1.05e+00	UGG

Site: BORE SBSA008

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	10-jul-1990	00	SULFID	LT	2.41e-01	MGKG
0.0	10-jul-1990	00	SULFID	LT	2.48e-01	MGKG
9.0	10-jul-1990	00	SULFID	LT	2.50e-01	MGKG
0.0	10-jul-1990	JB01	HG	LT	5.00e-02	UGG
5.0	10-jul-1990	JB01	HG	LT	5.00e-02	UGG
9.0	10-jul-1990	JB01	HG	LT	5.00e-02	UGG
0.0	10-jul-1990	JD15	SE	LT	2.50e-01	UGG
5.0	10-jul-1990	JD15	SE	LT	2.50e-01	UGG
9.0	10-jul-1990	JD15	SE	LT	2.50e-01	UGG
5.0	10-jul-1990	JD16	V		5.48e+01	UGG
0.0	10-jul-1990	JD16	V		6.37e+01	UGG
9.0	10-jul-1990	JD16	V		6.64e+01	UGG
0.0	10-jul-1990	JD17	PB		4.22e+00	UGG
5.0	10-jul-1990	JD17	PB		4.84e+00	UGG
9.0	10-jul-1990	JD17	PB		4.96e+00	UGG
9.0	10-jul-1990	JD18	AG		3.38e-02	UGG
0.0	10-jul-1990	JD18	AG	LT	2.50e-02	UGG
5.0	10-jul-1990	JD18	AG	LT	2.50e-02	UGG
0.0	10-jul-1990	JD19	AS		1.85e+00	UGG
5.0	10-jul-1990	JD19	AS		3.20e+00	UGG
9.0	10-jul-1990	JD19	AS		4.12e+00	UGG
5.0	10-jul-1990	JS11	AL		4.26e+03	UGG
9.0	10-jul-1990	JS11	AL		4.68e+03	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	10-jul-1990	JS11	AL		4.97e+03	UGG
0.0	10-jul-1990	JS11	BA		1.15e+02	UGG
5.0	10-jul-1990	JS11	BA		1.16e+02	UGG
9.0	10-jul-1990	JS11	BA		1.17e+02	UGG
0.0	10-jul-1990	JS11	BE	LT	1.86e+00	UGG
5.0	10-jul-1990	JS11	BE	LT	1.86e+00	UGG
9.0	10-jul-1990	JS11	BE	LT	1.86e+00	UGG
0.0	10-jul-1990	JS11	CA		5.46e+03	UGG
9.0	10-jul-1990	JS11	CA		1.61e+04	UGG
5.0	10-jul-1990	JS11	CA		1.69e+04	UGG
0.0	10-jul-1990	JS11	CD	LT	3.05e+00	UGG
5.0	10-jul-1990	JS11	CD	LT	3.05e+00	UGG
9.0	10-jul-1990	JS11	CD	LT	3.05e+00	UGG
0.0	10-jul-1990	JS11	CO	LT	1.50e+01	UGG
5.0	10-jul-1990	JS11	CO	LT	1.50e+01	UGG
9.0	10-jul-1990	JS11	CO	LT	1.50e+01	UGG
0.0	10-jul-1990	JS11	CR	LT	1.27e+01	UGG
5.0	10-jul-1990	JS11	CR	LT	1.27e+01	UGG
9.0	10-jul-1990	JS11	CR	LT	1.27e+01	UGG
0.0	10-jul-1990	JS11	CU	LT	5.86e+01	UGG
5.0	10-jul-1990	JS11	CU	LT	5.86e+01	UGG
9.0	10-jul-1990	JS11	CU	LT	5.86e+01	UGG
9.0	10-jul-1990	JS11	FE		1.43e+04	UGG
5.0	10-jul-1990	JS11	FE		1.50e+04	UGG
0.0	10-jul-1990	JS11	FE		1.57e+04	UGG
5.0	10-jul-1990	JS11	K		1.17e+03	UGG
9.0	10-jul-1990	JS11	K		1.48e+03	UGG
0.0	10-jul-1990	JS11	K		1.57e+03	UGG
0.0	10-jul-1990	JS11	MG		4.89e+03	UGG
5.0	10-jul-1990	JS11	MG		5.72e+03	UGG
9.0	10-jul-1990	JS11	MG		6.45e+03	UGG
5.0	10-jul-1990	JS11	MN		4.39e+02	UGG
9.0	10-jul-1990	JS11	MN		4.69e+02	UGG
0.0	10-jul-1990	JS11	MN		4.74e+02	UGG
0.0	10-jul-1990	JS11	NA		4.70e+02	UGG
5.0	10-jul-1990	JS11	NA		4.84e+02	UGG
9.0	10-jul-1990	JS11	NA		4.90e+02	UGG
0.0	10-jul-1990	JS11	NI	LT	1.26e+01	UGG
5.0	10-jul-1990	JS11	NI	LT	1.26e+01	UGG
9.0	10-jul-1990	JS11	NI	LT	1.26e+01	UGG
0.0	10-jul-1990	JS11	SB	LT	3.80e+00	UGG
5.0	10-jul-1990	JS11	SB	LT	3.80e+00	UGG
9.0	10-jul-1990	JS11	SB	LT	3.80e+00	UGG
0.0	10-jul-1990	JS11	TL	LT	3.13e+01	UGG
5.0	10-jul-1990	JS11	TL	LT	3.13e+01	UGG
9.0	10-jul-1990	JS11	TL	LT	3.13e+01	UGG
0.0	10-jul-1990	JS11	ZN		6.14e+01	UGG
5.0	10-jul-1990	JS11	ZN	LT	3.02e+01	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA008 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
9.0	10-jul-1990	JS11	ZN	LT	3.02e+01	UGG
0.0	10-jul-1990	KF10	NIT	LT	6.00e-01	UGG
5.0	10-jul-1990	KF10	NIT	LT	6.00e-01	UGG
9.0	10-jul-1990	KF10	NIT	LT	6.00e-01	UGG
0.0	10-jul-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	10-jul-1990	KY01	CYN	LT	9.20e-01	UGG
9.0	10-jul-1990	KY01	CYN	LT	9.20e-01	UGG

Site: BORE SBSA009

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
9.0	05-sep-1990	00	SULFID	LT	2.42e-01	UGG
0.0	05-sep-1990	00	SULFID	LT	2.43e-01	UGG
5.0	05-sep-1990	00	SULFID	LT	2.44e-01	UGG
9.0	05-sep-1990	00	SULFID	LT	2.44e-01	UGG
0.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
5.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
9.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
0.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD17	PB		4.02e+00	UGG
5.0	05-sep-1990	JD17	PB		4.04e+00	UGG
0.0	05-sep-1990	JD17	PB		4.27e+00	UGG
0.0	05-sep-1990	JD18	AG		3.05e-02	UGG
5.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
9.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
0.0	05-sep-1990	JD19	AS		2.24e+00	UGG
5.0	05-sep-1990	JD19	AS		3.69e+00	UGG
9.0	05-sep-1990	JD19	AS		4.89e+00	UGG
0.0	05-sep-1990	JS11	AL		5.69e+03	UGG
5.0	05-sep-1990	JS11	AL		5.69e+03	UGG
9.0	05-sep-1990	JS11	AL		6.61e+03	UGG
9.0	05-sep-1990	JS11	AL		6.93e+03	UGG
0.0	05-sep-1990	JS11	BA		1.18e+02	UGG
5.0	05-sep-1990	JS11	BA		1.31e+02	UGG
9.0	05-sep-1990	JS11	BA		1.41e+02	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA009 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
9.0	05-sep-1990	JS11	BA		1.45e+02	UGG
0.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
9.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
9.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
0.0	05-sep-1990	JS11	CA		6.26e+03	UGG
9.0	05-sep-1990	JS11	CA		1.49e+04	UGG
9.0	05-sep-1990	JS11	CA		1.59e+04	UGG
5.0	05-sep-1990	JS11	CA		1.68e+04	UGG
0.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
9.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
9.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
0.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
9.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
9.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
0.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
5.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
9.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
9.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
0.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
9.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
9.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
0.0	05-sep-1990	JS11	FE		1.95e+04	UGG
5.0	05-sep-1990	JS11	FE		1.99e+04	UGG
9.0	05-sep-1990	JS11	FE		2.32e+04	UGG
9.0	05-sep-1990	JS11	FE		2.32e+04	UGG
5.0	05-sep-1990	JS11	K		1.16e+03	UGG
9.0	05-sep-1990	JS11	K		1.40e+03	UGG
9.0	05-sep-1990	JS11	K		1.41e+03	UGG
0.0	05-sep-1990	JS11	K		1.90e+03	UGG
0.0	05-sep-1990	JS11	MG		5.59e+03	UGG
5.0	05-sep-1990	JS11	MG		6.67e+03	UGG
9.0	05-sep-1990	JS11	MG		7.52e+03	UGG
9.0	05-sep-1990	JS11	MG		7.58e+03	UGG
0.0	05-sep-1990	JS11	MN		4.91e+02	UGG
5.0	05-sep-1990	JS11	MN		4.95e+02	UGG
9.0	05-sep-1990	JS11	MN		5.51e+02	UGG
9.0	05-sep-1990	JS11	MN		5.87e+02	UGG
0.0	05-sep-1990	JS11	NA		5.38e+02	UGG
5.0	05-sep-1990	JS11	NA		5.85e+02	UGG
9.0	05-sep-1990	JS11	NA		6.22e+02	UGG
9.0	05-sep-1990	JS11	NA		6.25e+02	UGG
0.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
5.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
9.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA009 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
9.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
0.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
5.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
9.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
9.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
0.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
9.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
9.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
5.0	05-sep-1990	JS11	V		8.25e+01	UGG
0.0	05-sep-1990	JS11	V		8.66e+01	UGG
9.0	05-sep-1990	JS11	V		9.38e+01	UGG
9.0	05-sep-1990	JS11	V		9.44e+01	UGG
5.0	05-sep-1990	JS11	ZN		6.92e+01	UGG
9.0	05-sep-1990	JS11	ZN		7.53e+01	UGG
9.0	05-sep-1990	JS11	ZN		7.57e+01	UGG
0.0	05-sep-1990	JS11	ZN		8.57e+01	UGG
9.0	05-sep-1990	KF10	NIT		7.84e-01	UGG
5.0	05-sep-1990	KF10	NIT		2.41e+00	UGG
0.0	05-sep-1990	KF10	NIT		8.47e+00	UGG
0.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
9.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
9.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG

Site: BORE SBSA009D

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
9.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
9.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD17	PB		3.31e+00	UGG
9.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
0.0	05-sep-1990	JD19	AS		4.62e+00	UGG
9.0	05-sep-1990	KF10	NIT		6.61e-01	UGG

Installation: Umatilla AD
Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA010

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
5.0	05-sep-1990	00	SULFID	LT	2.33e-01	UGG
0.0	05-sep-1990	00	SULFID	LT	2.44e-01	UGG
9.0	05-sep-1990	00	SULFID	LT	2.49e-01	UGG
0.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
5.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
9.0	05-sep-1990	JB01	HG	LT	5.00e-02	UGG
0.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
9.0	05-sep-1990	JD15	SE	LT	2.50e-01	UGG
5.0	05-sep-1990	JD17	PB		2.18e+00	UGG
9.0	05-sep-1990	JD17	PB		3.07e+00	UGG
0.0	05-sep-1990	JD17	PB		4.88e+00	UGG
9.0	05-sep-1990	JD18	AG		3.30e-02	UGG
0.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
5.0	05-sep-1990	JD18	AG	LT	2.50e-02	UGG
0.0	05-sep-1990	JD19	AS		2.61e+00	UGG
7.0	05-sep-1990	JD19	AS		3.05e+00	UGG
5.0	05-sep-1990	JD19	AS		3.05e+00	UGG
5.0	05-sep-1990	JS11	AL		4.64e+03	UGG
9.0	05-sep-1990	JS11	AL		4.65e+03	UGG
0.0	05-sep-1990	JS11	AL		6.30e+03	UGG
9.0	05-sep-1990	JS11	BA		7.10e+01	UGG
5.0	05-sep-1990	JS11	BA		1.15e+02	UGG
0.0	05-sep-1990	JS11	BA		1.24e+02	UGG
0.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
5.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
9.0	05-sep-1990	JS11	BE	LT	1.86e+00	UGG
0.0	05-sep-1990	JS11	CA		5.64e+03	UGG
5.0	05-sep-1990	JS11	CA		1.36e+04	UGG
9.0	05-sep-1990	JS11	CA		2.36e+04	UGG
0.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
5.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
9.0	05-sep-1990	JS11	CD	LT	3.05e+00	UGG
0.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
9.0	05-sep-1990	JS11	CO	LT	1.50e+01	UGG
5.0	05-sep-1990	JS11	CR		3.27e+01	UGG
0.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
9.0	05-sep-1990	JS11	CR	LT	1.27e+01	UGG
0.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
5.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG
9.0	05-sep-1990	JS11	CU	LT	5.86e+01	UGG

Background Analytical Results for Chemical Soil
From: 01-apr-90 To: 31-dec-91

Site: BORE SBSA010 (continued)

SAMPLE DEPTH (ft)	SAMPLE DATE	TEST METHOD	COMPOUND	BOOL	CONCENTRATION	UNITS
0.0	05-sep-1990	JS11	FE		1.89e+04	UGG
9.0	05-sep-1990	JS11	FE		2.09e+04	UGG
5.0	05-sep-1990	JS11	FE		2.28e+04	UG
5.0	05-sep-1990	JS11	K		7.79e+02	UG
9.0	05-sep-1990	JS11	K		9.67e+02	UGG
0.0	05-sep-1990	JS11	K		2.02e+03	UGG
0.0	05-sep-1990	JS11	MG		4.98e+03	UG
5.0	05-sep-1990	JS11	MG		5.32e+03	UG
9.0	05-sep-1990	JS11	MG		6.52e+03	UGG
5.0	05-sep-1990	JS11	MN		4.41e+02	UG
9.0	05-sep-1990	JS11	MN		4.45e+02	UG
0.0	05-sep-1990	JS11	MN		4.63e+02	UG
0.0	05-sep-1990	JS11	NA		5.14e+02	UGG
5.0	05-sep-1990	JS11	NA		7.38e+02	UG
9.0	05-sep-1990	JS11	NA		8.98e+02	UG
0.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
5.0	05-sep-1990	JS11	NI	LT	1.26e+01	UGG
9.0	05-sep-1990	JS11	NI	LT	1.26e+01	UG
0.0	05-sep-1990	JS11	SB	LT	3.80e+00	UG
5.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
9.0	05-sep-1990	JS11	SB	LT	3.80e+00	UGG
0.0	05-sep-1990	JS11	TL	LT	3.13e+01	UG
5.0	05-sep-1990	JS11	TL	LT	3.13e+01	UG
9.0	05-sep-1990	JS11	TL	LT	3.13e+01	UGG
9.0	05-sep-1990	JS11	V		6.65e+01	UG
0.0	05-sep-1990	JS11	V		7.68e+01	UG
5.0	05-sep-1990	JS11	V		1.05e+02	UG
5.0	05-sep-1990	JS11	ZN		6.82e+01	UGG
0.0	05-sep-1990	JS11	ZN		7.14e+01	UG
9.0	05-sep-1990	JS11	ZN		8.26e+01	UG
5.0	05-sep-1990	KF10	NIT		9.72e-01	UGG
9.0	05-sep-1990	KF10	NIT		2.30e+00	UG
0.0	05-sep-1990	KF10	NIT		9.95e+00	UG
0.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UGG
5.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UG
9.0	05-sep-1990	KY01	CYN	LT	9.20e-01	UG

Appendix G
Comparison of Background and WLSSI Soils Data

Table G-1
Summary of Be Concentrations Detected in Soils (μg/g)

UMDA Background Soils Investigation

Site ID	Depth (1)	Be
SBSA001	0	<1.86
	5	<1.86
	9	<1.86
SBSA002	0	<1.86
	5	<1.86
	9	<1.86
SBSA003	0	<1.86
	5	<1.86
SBSA004	0	<1.86
	5	<1.86
SBSA005	0	<1.86
	5	<1.86
	9	<1.86
SBSA006	0	<1.86
	5	<1.86
	9	<1.86
SBSA007	0	<1.86
	5	<1.86
	9	<1.86
SBSA008	0	<1.86
	5	<1.86
	9	<1.86
SBSA009	0	<1.86
	5	<18.6
	9	<1.86
SBSA0010	0	<1.86
	5	<1.86
	9	<1.86

WLSSI Results

Site ID	Depth	Be
S4B-5	0	<1.86
	4	<1.86
	10	<1.86
S4B-6	0	<1.86
	4	2.74
	10	<1.86
S4B-7	0	<1.86
	4	3.17
	10	3.20
S4B-8	0	3.01
	4	2.88
	10	2.64

Average Be concentration where detected = 2.94 μg/g

USGS (2) Results

Note: Concentration of Be in all 5 samples from northeastern Oregon <1 μg/g.

(1) In feet below land surface
(2) Shacklette and Boerngen, 1984